

DataFlux Migration Guide



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DataFlux Migration Guide

Version 2.2

May 21, 2012

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Java Toolkit

This product includes the Web Services Description Language for Java Toolkit 1.5.1 (WSDL4J). The WSDL4J binary code is located in the file wsdl4j.jar.

Use of WSDL4J is governed by the terms and conditions of the Common Public License Version 1.0 (CPL). A copy of the CPL can be found here at <http://www.opensource.org/licenses/cpl1.0.php>.

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Introduction to DataFlux Documentation

This section provides basic information about migrating to the latest DataFlux Data Management Studio.

- [Conventions Used in This Document](#)
- [Reference Publications](#)

Conventions Used In This Document

This document may use several conventions for special terms and actions in DataFlux products.

Typographical Conventions

The following typographical conventions may be used in this document:

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

Typographical Conventions

Syntax Conventions

The following syntax conventions may be used in this document:

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

Syntax Conventions

Path Conventions

Various products and operating systems may use different paths for default locations. This document uses the Microsoft® Windows® 7 path in examples. The following examples display the differences in paths for three different operating systems:

Windows XP

drive:\Program Files\DataFlux\AuthenticationServer\version

Windows 7

32bit – drive:\Program Files (x86)\DataFlux\AuthenticationServer\version

64bit – drive:\Program Files\DataFlux\AuthenticationServer\version

UNIX

/opt/dataflux/das

Reference Publications

This document may reference other DataFlux publications including:

- DataFlux Data Management Studio Installation and Configuration Guide
- *DataFlux Data Management Studio Online Help*
- DataFlux Data Management Server Administrator's Guide
- DataFlux Data Management Server User's Guide

Documentation provided with this software is located in the installation folder for DataFlux. For example, C:\Program Files\DataFlux\DMStudio\version.

Many of the documents listed can also be found on the MyDataFlux Portal at <http://dataflux.com/MyDataFlux-Portal.aspx> under **Documentation**.

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 you need to consider when migrating from one DataFlux platform 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 Platform.

The section called [Specific Migration Scenarios](#) provides step-by-step guidance when migrating from dfPower Studio and Data Integration Server v. 8.x to Data Management Platform v. 2.1 to v. 2.2.

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.

- [Migrating From dfPower Studio v. 8.1/8.2 to Data Management Studio v. 2.2](#)
- [Migrating From DataFlux Integration Server 8.1/8.2 to Data Management Server 2.2](#)
- [Migrating From Data Management Studio 2.1 to Data Management Studio 2.2](#)
- [Migrating From Data Management Server v. 2.1 to Data Management Server v. 2.2](#)

DataFlux Tool Utility

The DataFlux Tool Utility is available to assist you with migrating to DataFlux Data Management Studio v. 2.2. The DataFlux Migration Guide, along with the README.txt file, can be downloaded through the MyDataFlux Portal.

- DataFlux Tool 2.1 Windows 32 bit:
<http://www.dataflux.com/Downloads/Utilities/dftool/dftool22.zip>
- DataFlux Tool 2.2 Windows 32 bit:
<http://www.dataflux.com/Downloads/Utilities/dftool/dftool22.zip>
- DataFlux Tool 2.2 Windows 64 bit:
<http://www.dataflux.com/Downloads/Utilities/dftool/dftool22-win64.zip>
- DataFlux Tool README:
<http://www.dataflux.com/Downloads/Utilities/dftool/README.txt>

When you download the latest Data Management Studio release, you will receive a zip file. First, unpack the zip file at the Data Management Studio or Data Management Server install root.

For example, if the Data Management Studio v. 2.2 install root is:

C:\Program Files\DataFlux\DMStudio\2.2

then the contents should be unpacked in the 2.2 directory. The contents of the zip files include:

- dftool.bat into the [DM Studio/Server install root]
- dftool.exe into [DM Studio/Server install root]\bin
- patch.dftool02.meta into [DM Studio/Server install root]\data\install

Here is a brief sample of the contents of the README text file which provides a highlight on how this utility is used:

```
=====
ACTIONS:
COPY - Several copy options to help with moving items
MACROFIX - This tool will load an architect job and scan it for
macro usage.
REPOSCOPY - Copies a repository to a new blank repository
REPOSCREATE - Create a new blank repository
REPOSDROP - Drops a repository. ALL DATA IS DELETED
REPOSUPGRADE - Upgrade repository to current version
REPOSCPYUPGRD - Copies a repository then upgrades it to the
current version
STRESS - Applies memory, disk and stack stress
=====

How to run:
$> dftool
Please enter an action to take or help for more information
1 COPY
2 MACROFIX
```

```

3 REPOS COPY
4 REPOS CREATE
5 REPOS DROP
6 REPOS UPGRADE
7 REOPS CREATE AND COPY
8 STRESS
9 HELP
Please pick a number:
=====
Once a number is picked, more options are displayed.

```

This utility uses a Microsoft utility called Robocopy to copy files. This is available by default on Microsoft® Windows® 7 operating systems. If you are still using Microsoft Windows XP, Robocopy is a part of the Windows Server 2003 Resource Kit Tools and can be downloaded from Microsoft at <http://www.microsoft.com/download/en/details.aspx?id=17657>.

Here are some known caveats around the script. If using the DataFlux Tool to copy contents, the tool only copies from and to the system defaults. If the default locations for the DSN and DFTKDSN directories have been overruled through a configuration in the app.cfg, the utility will not pick this up. In this case it would be best to manually move these around. Here is a table that indicates the settings that could be set which would indicate a manual process:

Configuration File(*)	Configuration Setting	Default Value	Description
app.cfg	DAC/DSN	<DMStudio-install>\etc\dftkdsn	Path for storing non-ODBC DSNs (SAS Data Set, Fed Server, Localized DSN, Domain-Enabled ODBC connection, ...)
app.cfg	DAC/SAVEDCONNSYSTEM	<DMStudio-install>\etc\dsn	Location for storing system saved connections

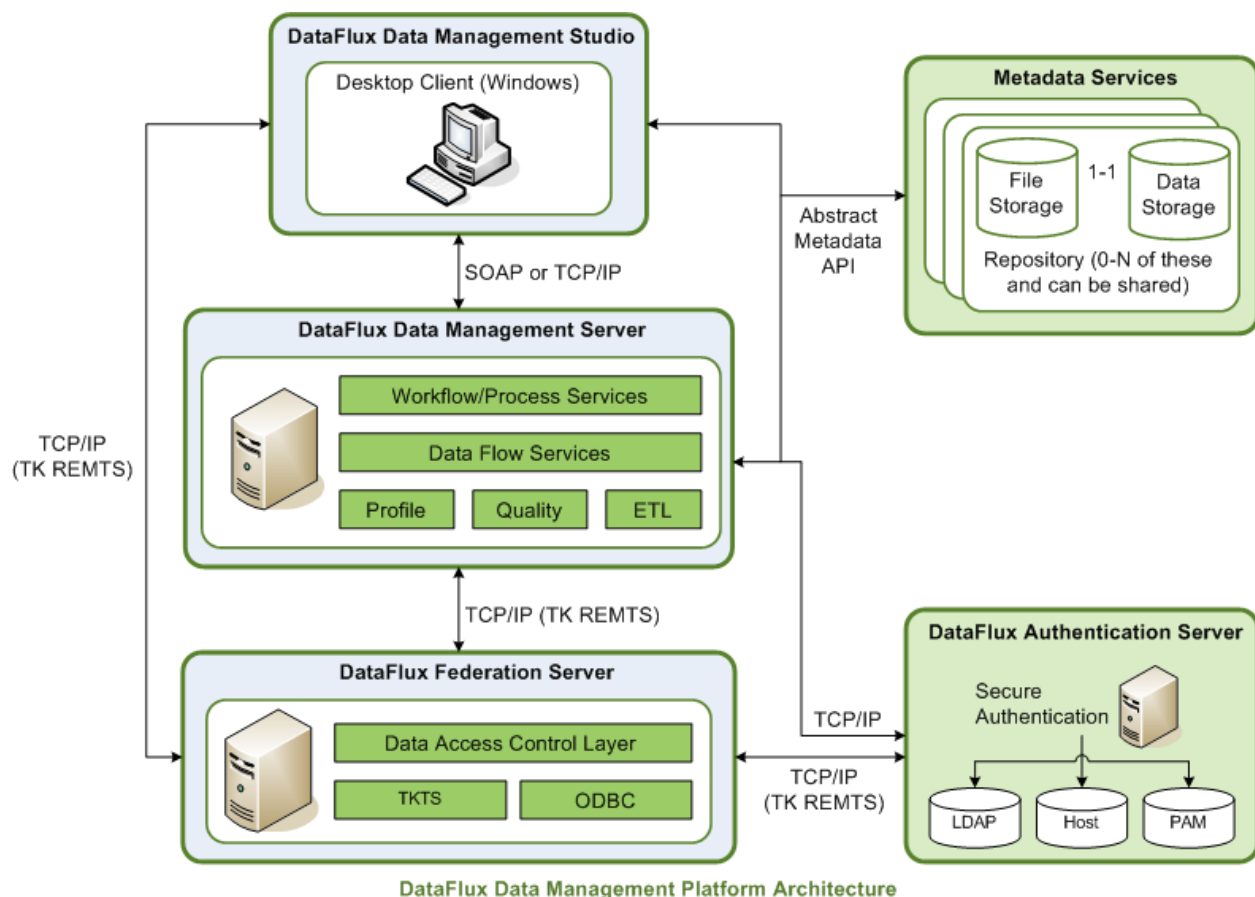
If you try to use Windows directories like "My Documents" there may be issues with using the utility. Either switch to using the full path or to using a manual process to copy content.

General Information About Migration

- [Overview of the Data Management Platform](#)
- [What is Migration?](#)
- [What Versions Can Be Migrated?](#)
- [Summary of the Migration Process](#)

Overview of the Data Management Platform

This guide describes how to migrate your content from DataFlux dfPower Studio to the new DataFlux Data Management Platform (Data Management Platform). The following diagram illustrates the components of the platform.



Data Management Studio

Data Management Platform is a data management suite that combines data quality, data integration, and Master Data Management (MDM). Compared to DataFlux dfPower Studio

(dfPower Studio), DataFlux Data Management Studio (Data Management Studio) has a more integrated interface, better management of data flows and process flows, enhanced data access through the DataFlux Federation Server (Federation Server), and many other new features. The section that discusses [migrating from dfPower Studio](#) describes how to migrate your content and manage the impact of differences between Data Management Studio and dfPower Studio.

Repositories

When you create jobs and other objects in Data Management Studio, they are stored in repositories that are similar to 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 dfPower Studio repository to a Data Management Studio repository.

Servers

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

- The Data Management Server is a new version of the DataFlux Data Integration Server. It provides a scalable server environment for large Data Management Studio jobs. Jobs can be uploaded from Data Management Studio to a Data Management Server, where the jobs are executed.
- The DataFlux Federation Server (Federation Server) is a new server. It provides central management of the data connections using ODBC or native drivers as well as access privileges for these connections.
- The DataFlux Authentication Server (Authentication Server) is a new server. It centralizes the management of users, groups, and database credentials.

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

What is Migration?

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

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
DataFlux Data Integration Server 8.x	DataFlux Data Management Server 2.2
DataFlux Data Management Studio v. 2.1	DataFlux Data Management Studio v. 2.2
DataFlux Data Management Server v. 2.1	DataFlux Data Management Server v. 2.2

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 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 dfPower Studio 8.1/8.2 to Data Management Studio 2.2](#)
- [Migrating From DataFlux Integration Server 8.1/8.2 to Data Management Server 2.2](#)
- [Migrating From Data Management Studio 2.1 to Data Management Studio 2.2](#)
- [Migrating From Data Management Server v. 2.1 to Data Management Server v. 2.2](#)

Planning the Content Migration

- [Content That Can Be Automatically Migrated](#)
- [Content That Must be Modified and Recreated](#)
- [Repositories and Management Resources](#)
- [Architect Jobs](#)
- [Profile Jobs](#)
- [Macros](#)
- [Business Rules, Tasks, and Related Items](#)

Content That Can Be Automatically Migrated

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

Repositories

The Add Repository dialog in Data Management Studio can do an in-place migration of a dfPower Studio repository. For more information, see [Repositories and Management Resources](#).

Architect jobs

You will use the upgrade job utilities in Data Management Studio to convert 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 Data Management Studio to convert 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 Data Management Studio to link a dfPower Studio profile job with a related report and combine the two in a 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 Recreated

The following content cannot be automatically migrated from dfPower Studio to Data Management Studio. You must modify or recreate 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 dfPower Studio repositories and Management Resources to 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](#).

Architect jobs that pass macro variable values dynamically between pages in the job

For more information about the updates that are required for these jobs, see **Architect Jobs That Pass Macro Variable Values Dynamically Between Pages in the Job** section of the *DataFlux Data Management Studio Online Help* v. 2.2.

Profile reports that are stored in a file (.pfo file)

You cannot convert 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 Data Management Studio to recreate the report. For more information, see [Changes to Profile Jobs](#).

Batch scripts

The Data Management Platform has a new command line interface, so you must modify any batch scripts that execute profexec.exe (Profile command line interface for dfPower Studio); archbatch.exe (Architect command line interface for dfPower Studio), or dfexec.exe (command line interface for 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* v. 2.2.

Configuration files and global options

You cannot convert configuration files or global options that were created in dfPower Studio. To review the global options for Data Management Studio, from the Main menu, select

Tools > Data Management Studio Options. Some options can be set with checkboxes and similar controls. Other options must be set in configuration files. To review or change the settings in Data Management Studio configuration files, see the **Using Configuration Files** topic in the **Global Options** section of the *DataFlux Data Management Studio Online Help* v. 2.2.

Data Explorations

You cannot convert Explorations that were created in dfPower Studio. You must recreate them in Data Management Studio. See the **Data Explorations** section in the *DataFlux Data Management Studio Online Help* v. 2.2. Currently, the migration software will move dfPower Studio Data Explorations into the Folders tree in Data Management Studio. You cannot use these items in Data Management Studio, however, so you can select and delete them from the Folders tree.

Data Management Server

The DataFlux Data Management Studio is a new version of the DataFlux Data Integration Server. The move to the new server will have some impacts on migration. For more information, see [Changes Related to the Data Management Server](#).

Macro variables

You will probably have to make some updates in order for dfPower Studio macro variables to work in Data Management Studio. For more information, see [Macro Variables](#).

SAS connections

You cannot convert SAS connections that were created in dfPower Studio. You must recreate them in Data Management Studio. See the **Adding SAS Data Set Connections** section in the *DataFlux Data Management Studio Online Help* v. 2.2.

Repositories and Management Resources


- [Plan the Migration of Each Repository and Management Resource](#)
- [Changes to Repositories and Management Resources](#)

Plan the Migration of Each Repository and Management Resource

- [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 Overview of Migrating from dfPower Studio and try to anticipate the main items that you will have to update, replace, move or delete in Data Management Studio.

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

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

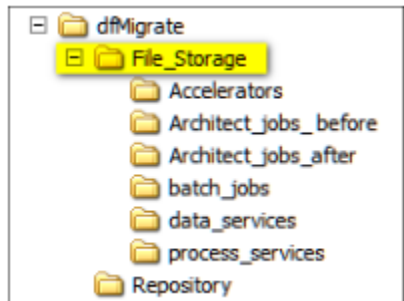
If the dfPower repository is stored on a database server, use DBMS tools to copy the repository. Then, create a new ODBC connection that points to the copy. Later, you will use that new connection to specify the dfPower repository to be migrated.


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 sub-folder is where the dfPower repository file will be copied and later converted to a Data Management Studio repository. The names of these folders are simply examples.

The File_Storage sub-folder corresponds to the file storage area in a 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 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 will ever deploy Data Management Studio jobs to a Data Management Server.

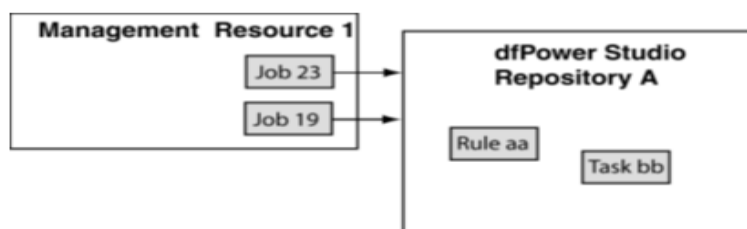
In this migration guide, the folders in the previous display are used as follows:

- Unconverted Architect jobs are copied to the Architect_jobs_before folder, as described in Copy Architect Jobs to the File Storage Area of the Repository.
- Architect jobs that have been converted to 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 Data Management Studio jobs that will be deployed to a Data Management Server.

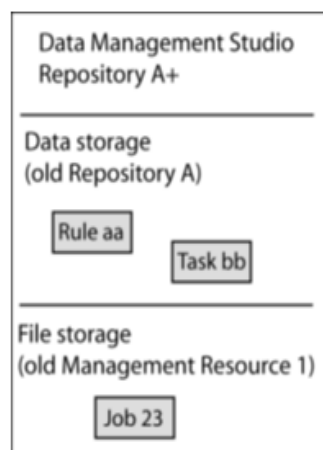
The Accelerators folder is used for jobs that are associated with DataFlux Accelerators. This guide does not cover the migration of accelerators.

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.



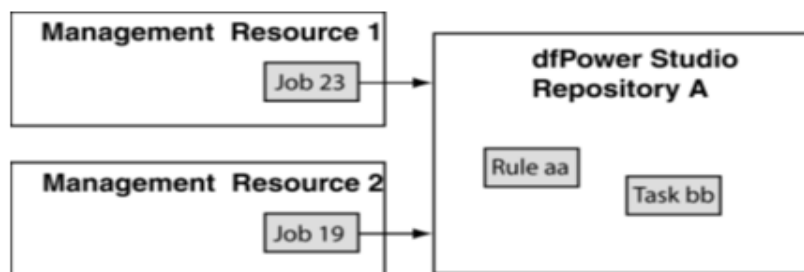
To migrate this configuration, you would run the New Repository Definition wizard in Data Management Studio. You would specify a data location, which would be the physical path to a copy of Repository A. You would specify an empty file storage area, such as the File_Storage folder that is described in General Planning for Repositories. Then you would 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 next figure.



For detailed steps, see Migrate Repositories and Management Resources.

Migration Scenario: One dfPower Repository, Multiple Management Resources

In 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.

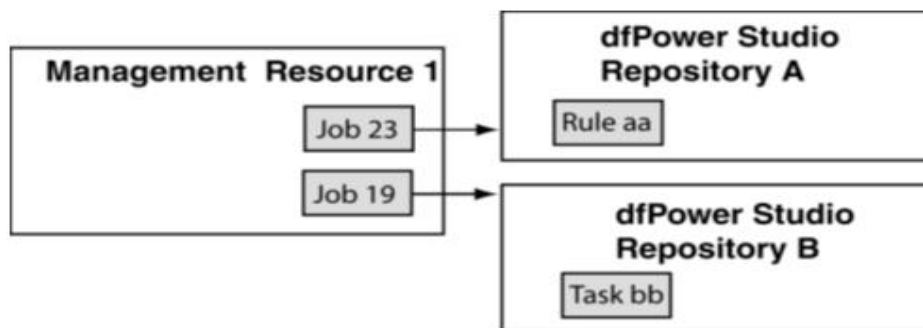


In Data Management Studio, however, each repository can have at most one data storage area and one file storage area. You cannot create a Data Management Studio repository that has two file storage areas that correspond to Management Resources 1 and 2. Given a dfPower Studio configuration similar to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

To migrate this configuration, you would run the New Repository Definition wizard in Data Management Studio. You would specify a data location, which would be the physical path to a copy of Repository A. You would specify an empty file storage area, such as the File_Storage folder that is described in General Planning for Repositories. Then you would 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. For detailed steps, see Migrate Repositories and Management Resources.

Migration Scenario: Multiple dfPower Repositories, One Management Resource

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



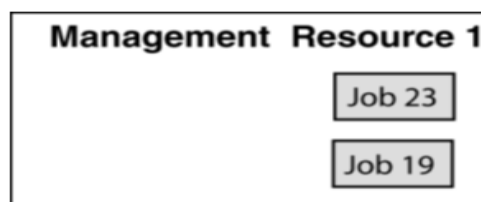
In Data Management Studio, however, each repository can have at most one data storage area and one file storage area. You cannot create a Data Management Studio repository

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 Data Management Studio repository. For example, you could perform the following steps.

1. Migrate one dfPower repository as described in [Migrate Repositories and Management Resources](#). 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, as described in [Copy Architect Jobs to the File Storage Area of the Repository](#).
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 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 [Export Rules and Related Items](#).
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 [Import Rules and Related Items](#).

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

In 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 Data Management Studio, however, each repository must have one data storage area. You cannot create a Data Management Studio repository that has a file storage area only.

To migrate this configuration, you would create a new 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

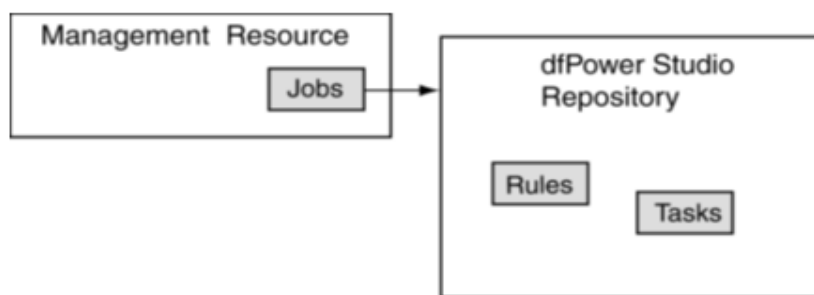
same repository. For detailed steps, see [Migrate a Management Resource With No dfPower Repository](#).

Changes to Repositories and Management Resources

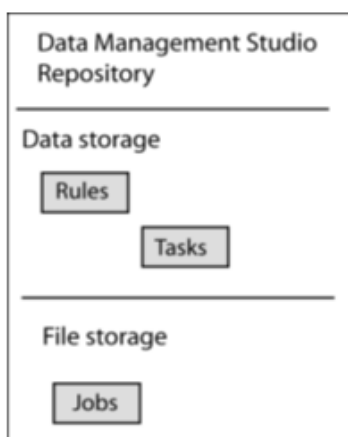
- [The Meaning of Repository has Changed](#)
- [New Repository Interfaces](#)
- [Changes in Repository Storage](#)
- [Changes Related to the Data Management Server](#)

The Meaning of "Repository" has Changed

In 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 Data Management Platform, 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 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 new architecture puts new constraints on where items can be stored. In Data Management Platform:

- Each Data Management Platform repository must have a data storage area. The file storage area is optional.
- Each Data Management Platform repository can have at most one data storage area and one file storage area.

All related items must be stored in the same Data Management Platform 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 dfPower Studio repositories and Management Resources to Data Management Studio. For more information, see [Plan the Migration of Each Repository and Management Resource](#).

New Repository Interfaces

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

New Repository Definition

Name:

Data storage
Specify a database for the storage of items requiring a database.

☒ Database file
Location:

☐ Database connection
Name:
Table prefix (optional):

File storage (optional)
Specify a folder for the storage of file-based items.

Folder:

☒ Connect to repository at startup
☒ Private

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

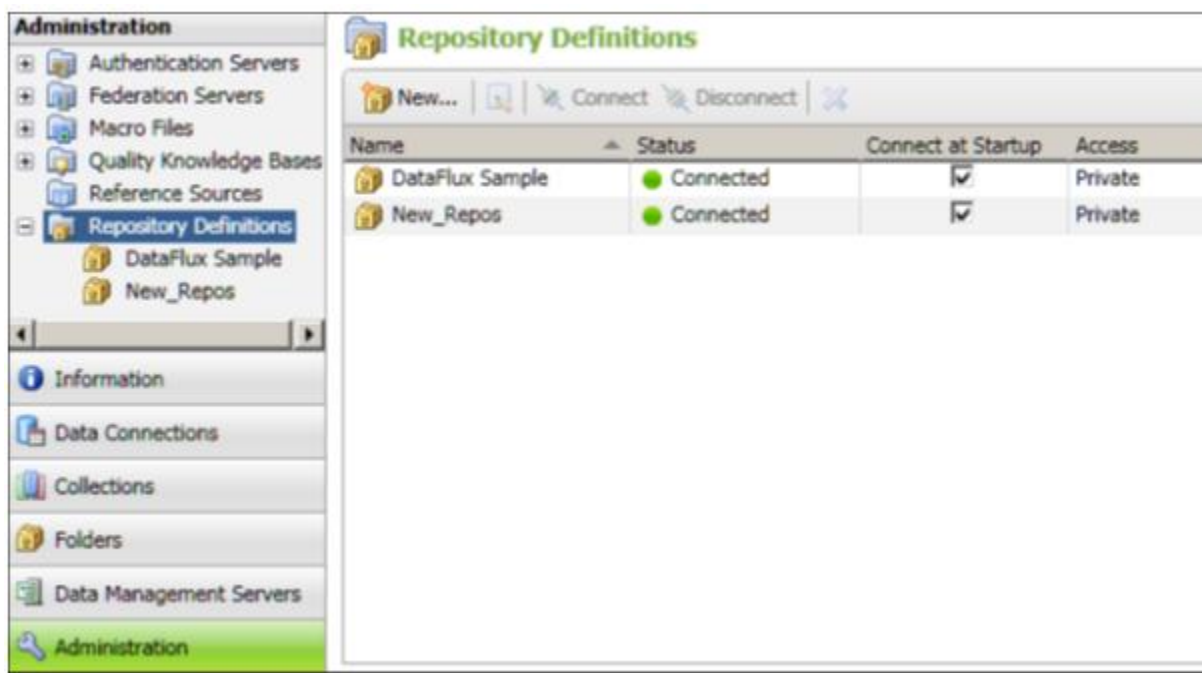
In Data Management Platform, however, the Data storage area and the File storage area are bound together under a single ID, in a single entity called a repository.

In Data Management Platform, it is possible to have a repository that specifies:

- a Data storage area only
- a Data storage area and a File storage area

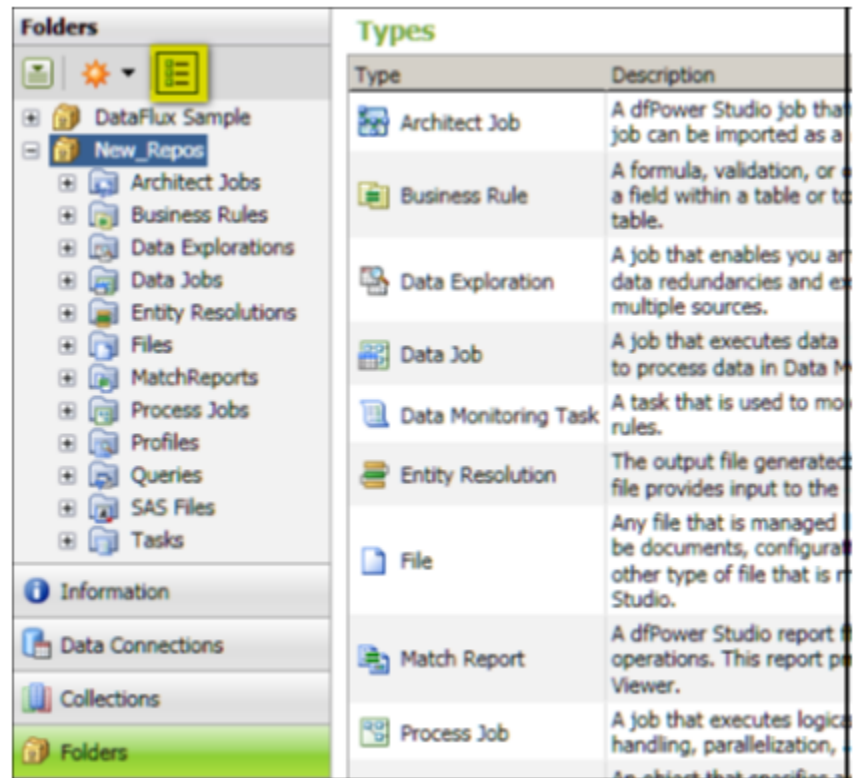
It is not possible for a Data Management Platform repository to specify a File storage area only

The Repository Definitions folder in the Administration riser is used to manage the list of available repositories.



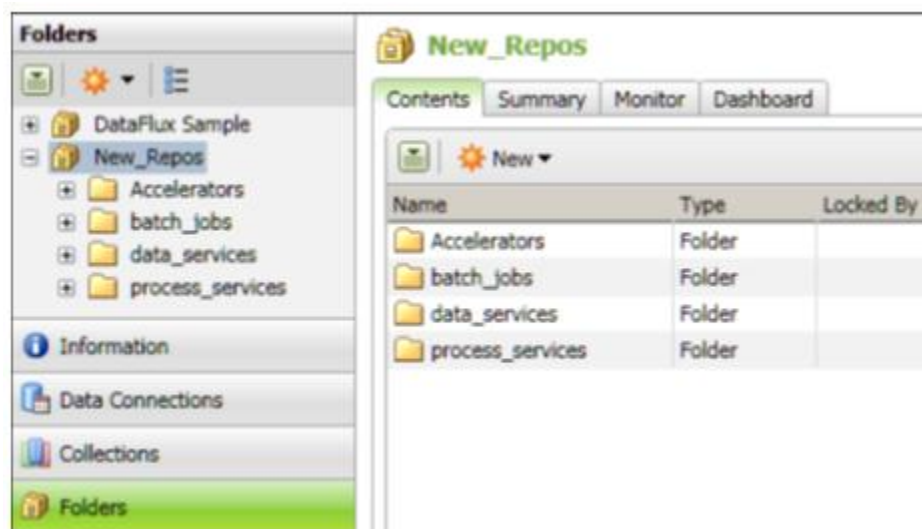
In the previous display, there are two repository definitions: DataFlux Sample and New_Repos.

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 control 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 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 *DataFlux Data Management Studio Online Help* for v. 2.1.1.

Changes in Repository Storage

There are some changes in the databases and operating systems that can be used for Data Management Studio repository storage. For more information, see **Repository Storage** in the DataFlux Data Management Studio Installation and Configuration Guide for v. 2.1.1.

Changes Related to the Data Management Server

The DataFlux Data Management Server is a new version of the DataFlux Data Integration Server. Jobs can be uploaded from Data Management Studio to a Data Management Server, where the jobs are executed.

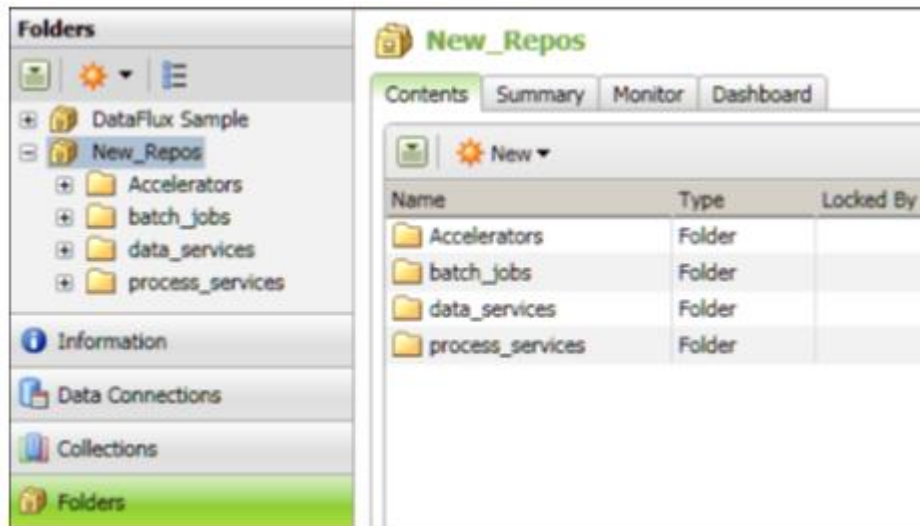
The Data Management Server can execute both Data Management Studio jobs and dfPower jobs. You can upload jobs from dfPower to the Data Management Server for execution.

If you used a Data Integration Server with security enabled, and you plan to continue to do so when moving to Data Management Studio, then you must regenerate and reconfigure all security ACL files. Enhancements have been made to Data Management Server that preclude the use of existing ACL files. For more information, see the *DataFlux Data Management Server Administrator's Guide* for v. 2.1.1.

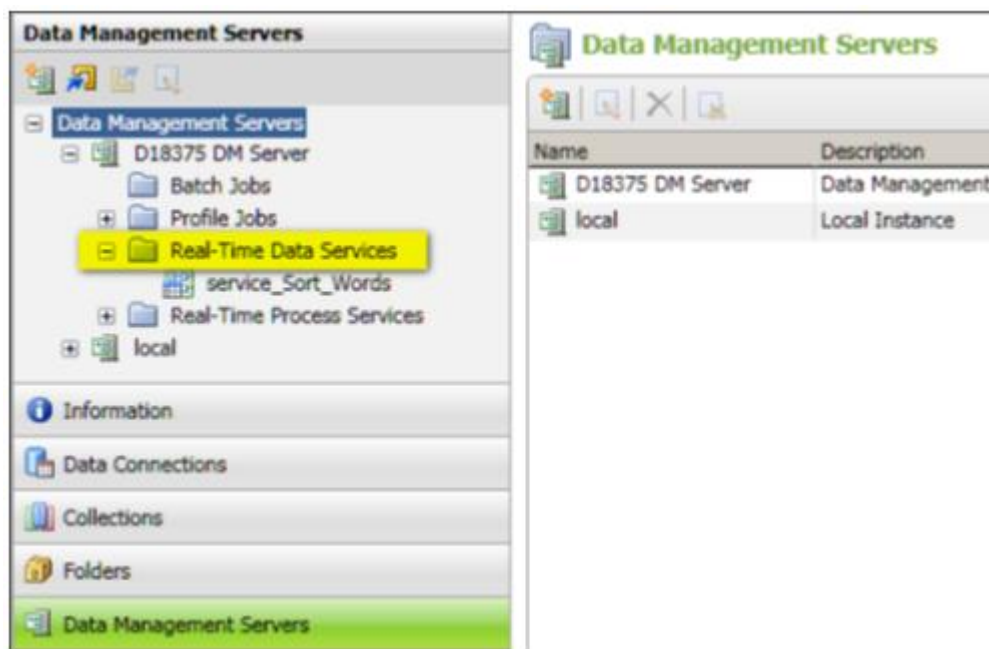
Multiple repositories can be active on a Data Integration Server, but only one repository can be active on a Data Management Server. If your site requires multiple repositories, then you must install multiple Data Management Servers.

The standard folders for deployable jobs (batch_jobs, data_services, and process_services) should always exist in a Data Management Studio repository and in a Data Management Server repository. Mirroring these folders will help preserve any references where one 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 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 Data Management Studio, you would save it to the data_services folder. When you deploy the job on a 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 will ever deploy Data Management Studio jobs to a 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 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. Be 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

- [Changes to Architect Jobs](#)
- [Plan the Migration of Architect Jobs](#)

Plan the Migration of Architect Jobs

Review Overview of Migrating from dfPower Studio and 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 will be easier to test the migrated jobs if you have a basic understanding of 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* for v. 2.1.1.

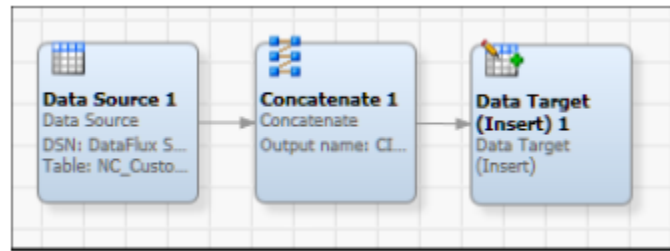
Changes to Architect Jobs

- [New Job Architecture](#)
- [New Job Interfaces](#)
- [New Storage Constraints](#)
- [Other Changes](#)

New Job Architecture

Data Management Studio has two kinds of jobs that are used for data integration data jobs and process jobs. Data jobs are the main way to process data in Data Management Studio.

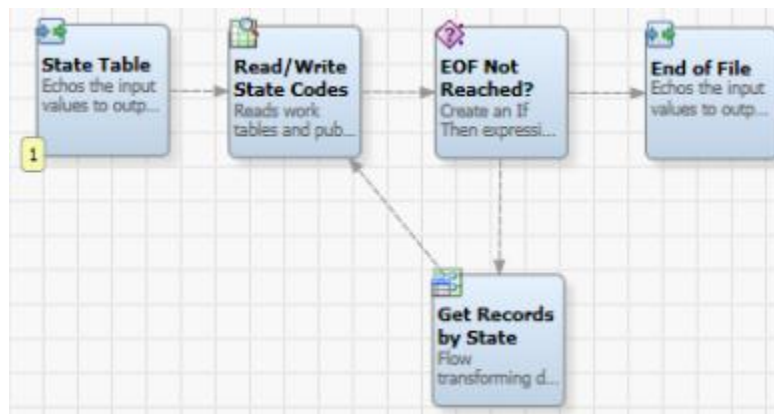
Each data job specifies a set of data-processing operations that flow from source to target, illustrated here.



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.



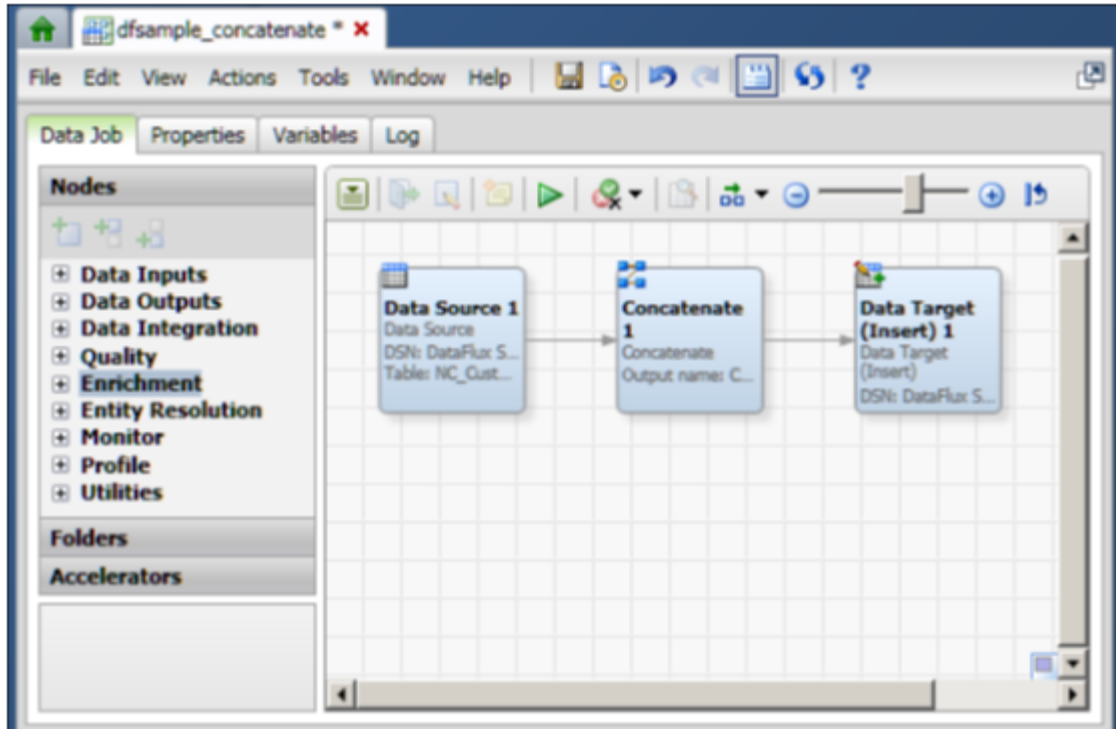
Data job nodes can be added to a process flow

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

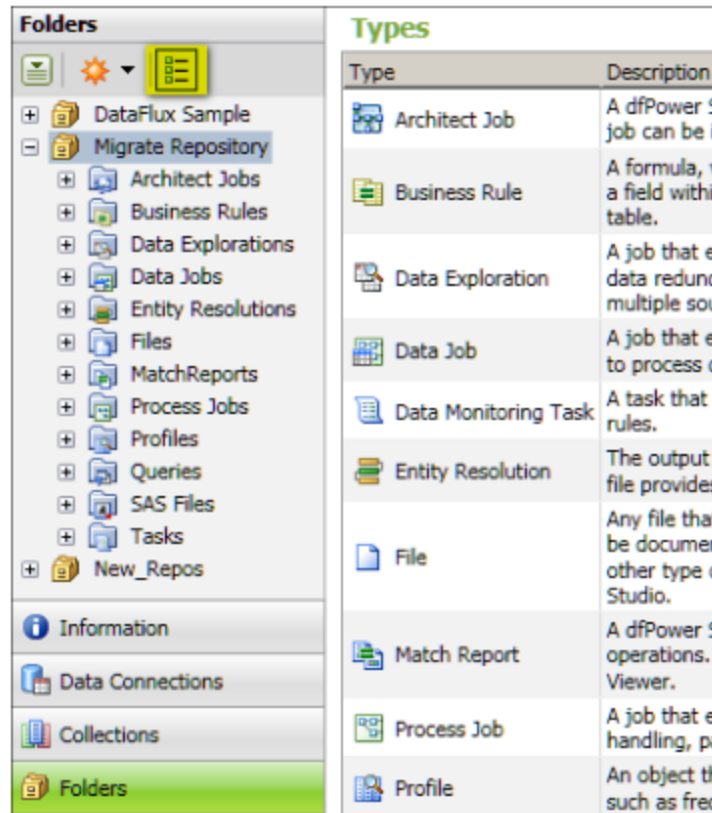
Data jobs and process jobs have a similar editor. The next display shows the data job editor.



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* for v. 2.2.

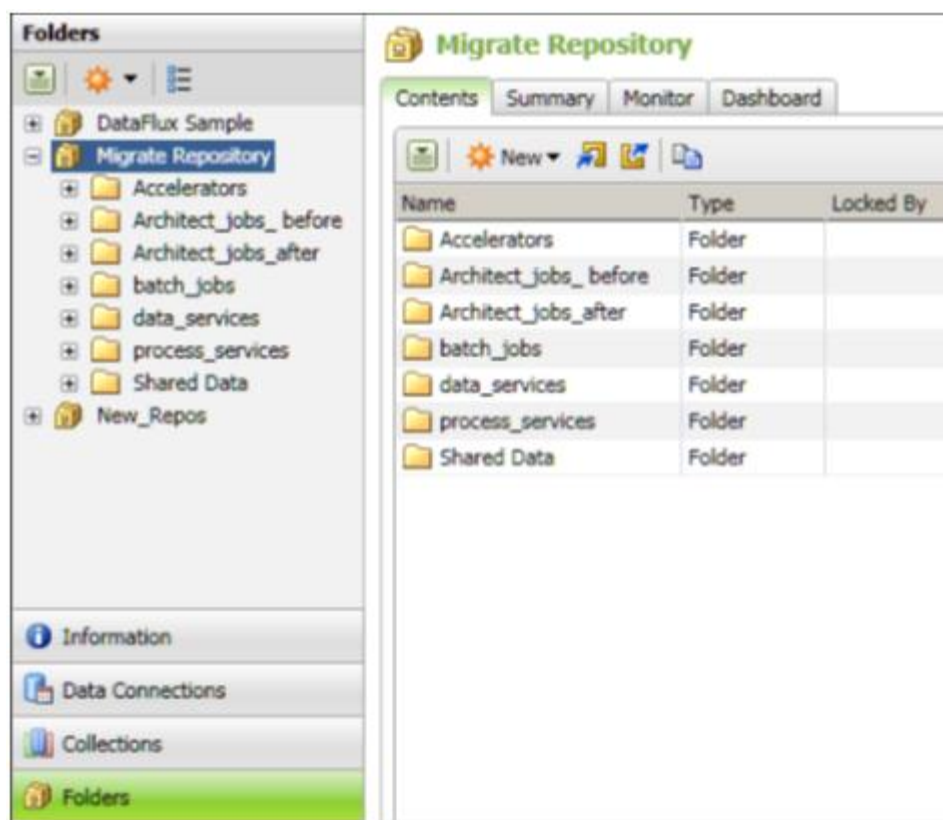
The Folders riser is where you manage Architect jobs before and after they have been converted to Data Management Studio jobs. In the Folders tree shown here, the Group Items by Type control is selected.



Group Items by Type selected

The Group Items by Type control 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, as described in Copy Architect Jobs to the File Storage Area of the Repository. You cannot open Architect jobs that have not been converted to 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](#), Data Management Platform puts new constraints on where jobs can be stored. In Data Management Platform:

- Each Data Management Platform repository can have at most one data storage area and one file storage area.
- All related items must be stored in the same Data Management Platform 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 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](#).

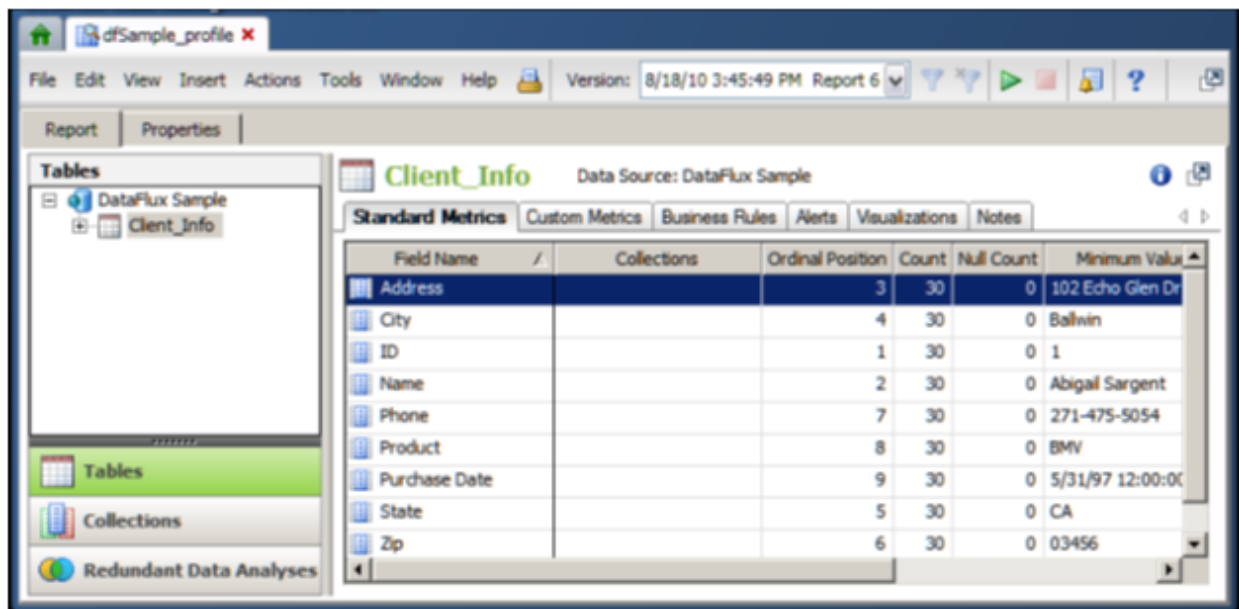
Profile Jobs

- [Changes to Profile Jobs](#)
- [New Storage Constraints](#)

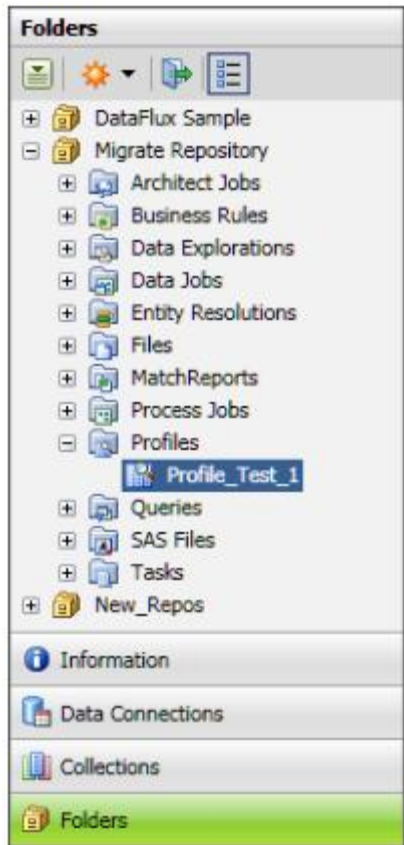
Changes to Profile Jobs

The Meaning of "Profile" Has Changed

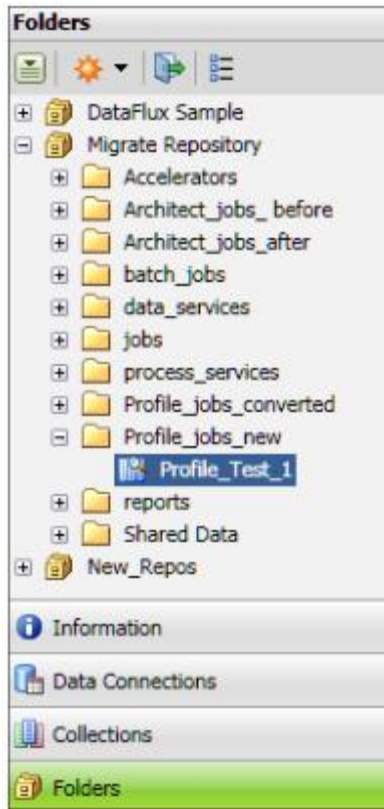
In dfPower Studio, a profile job and its report are separate objects. In Data Management Studio, a profile job and its report have been merged into a single object, and this object is simply called a profile. The profile dialog in Data Management Studio has separate tabs for the base properties of the 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, Data Management Platform puts new constraints on where profiles can be stored. In Data Management Platform:

- Each Data Management Platform repository can have at most one data storage area and one file storage area.
- All related items must be stored in the same Data Management Platform 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 dfPower Studio repositories and Management Resources to Data Management Studio. For more information, see [Plan the Migration of Each Repository and Management Resource](#).

Macros

Plan the Migration of Macros

New macro configuration files. 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 dfPower Studio macro variable definitions into one or more 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 dfPower Studio macro variables will often work in Data Management Studio without further modification.

Macro syntax changes. 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 Data Management Studio, all characters after the equal sign (=) and before the new line 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 *DataFlux Data Management Studio User's Guide*, v. 2.1.1.

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](#)
- [Post-Migration Tasks for Business Rules, Tasks, and Related Items](#)

Plan to Migrate Business Rules, Tasks, and Related Items

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 dfPower Studio.

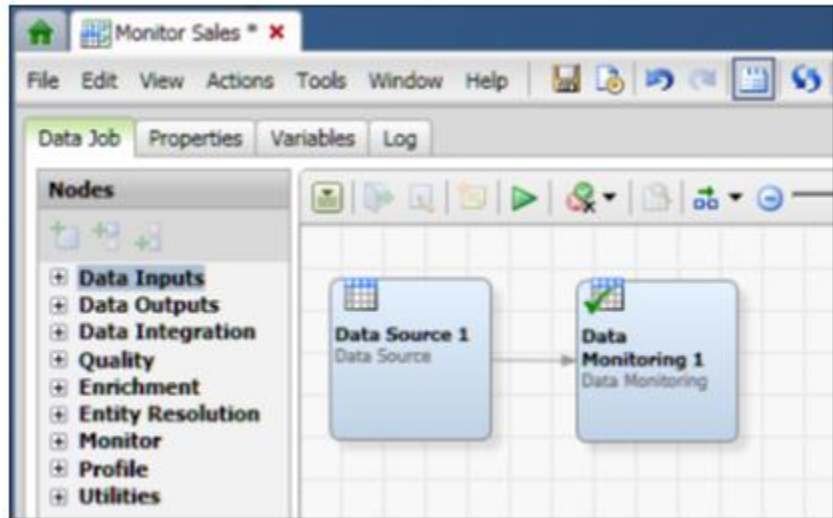
Post-Migration Tasks for Business Rules, Tasks, and Related Items

Rules and Related Items That Use Macro Variables

When a macro variable was used in a dfPower Studio task, the Data Monitoring node that is referencing this task will probably have to be updated before it will work in 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.

Specific Migration Scenarios

Select the appropriate migration option:



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.

- [Migrating from dfPower Studio v. 8.1 or v. 8.2 to Data Management Studio v. 2.2](#)
- [Migrating from DataFlux Integration Server v. 8.1 or v. 8.2 to Data Management Server v. 2.2](#)
- [Migrating from Data Management Studio v. 2.1 to Data Management Studio v. 2.2](#)
- [Migrating from Data Management Server v. 2.1 to Data Management Server v. 2.2](#)

Migrating From dfPower Studio v. 8.1/8.2 to Data Management Studio v. 2.2

- [Configurations](#)
- [Reference Sources](#)
- [Data Connections](#)
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- [Architect Jobs](#)
- [Profile Jobs](#)
- [Explorer Jobs](#)
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Configurations

DataFlux dfPower Studio (dfPower Studio) v. 8.1 stored configuration settings in the registry as well as in architect.cfg. You will need to take these settings out of those two locations and move them into the appropriate v. 2.2 configuration files as well as map to the v. 2.2 configuration setting.

Below is a list of dfPower v. 8.1 settings and what they map to in Data Management Studio (Studio) v. 2.2. You will need to copy the values that are in the v. 8.1 configuration files or Windows registry to the v. 2.2 configuration files. In doing so, there are several differences that you need to note between the configuration files:

- Numeric values in v 2.2 need to be written out. Values in v. 8.1 could be 10m which represents 10 million. In v. 2.2, this must be written as 10000000.
- DataFlux Data Management Platform (Platform) does not require configuration values to be surrounded by single quotes.
- Double quotes are not special in Platform configuration files.
- To escape characters (" , = , white space, and so on) in Platform configuration files surround them with single quotes.

In the following table, look at the v. 8.1 architect.cfg file, find the configuration from the file in the "8.1 Setting" column, look to the left to see the v. 2.2 equivalent setting found in the first column, and put the value in the file identified in column 2. For example, in the architect.cfg file we have the following:

```

architect - Notepad
File Edit Format View Help
# log file will be created,
CLUSTER/LOG=0

# Bytes of memory to use for
# example: 1024 = 1 kilobyte
CLUSTER/BYTES=67108864
  
```

To find the equivalent setting in 2.2, look in the "8.1 Setting" column to find "CLUSTER/BYTES".

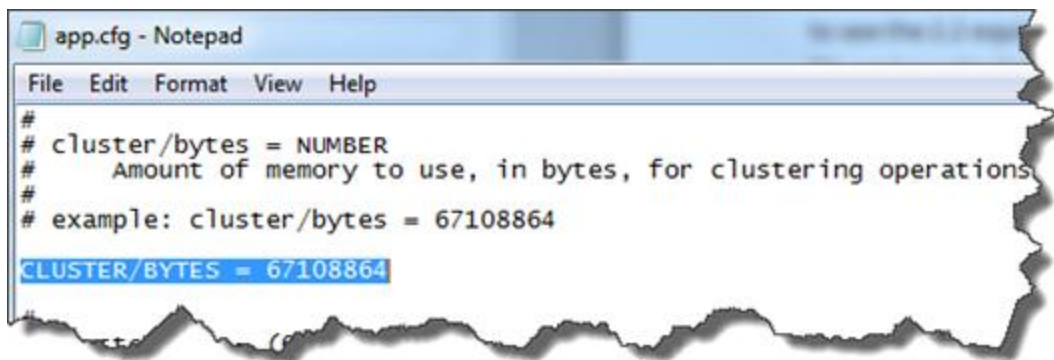
BASE/USER_PATH	(app.cfg)		
CLUSTER/BYTES	(app.cfg)	CLUSTER/BYTES ClusterBytes	(architect.cfg) HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPowerStudio\8.1\ARCHITECT

From here, you can tell that the v. 2.2 equivalent setting is CLUSTER/BYTES (column 1) and that the value lives in app.cfg (column 2). Open up the v. 2.2 app.cfg file and locate "CLUSTER/BYTES" (press CTRL+F) and look for the v. 2.2 configuration which, in this case, is also CLUSTER/BYTES

```

app.cfg - Notepad
File Edit Format View Help
#
# cluster/bytes = NUMBER
#   Amount of memory to use, in bytes, for clustering operations.
#
# example: cluster/bytes = 67108864
  
```

By default there is no value. Modify the app.cfg and insert the v. 8.1 setting.



Make 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 you need to copy over to 2.2.

DM Studio v. 2.2 Settings	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)

DM Studio v. 2.2 Settings	Data Management Studio File	dfPower Setting	dfPower File/Registry
BASE/TEXTMINE_LITI_LOCATION	app.cfg	--	--
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	--	--

DM Studio v. 2.2 Settings	Data Management Studio File	dfPower Setting	dfPower File/Registry
PROFCONFIG/METRIC23	ui.cfg	--	--
PROFCONFIG/METRICFRE QDIST	ui.cfg	--	--
PROFCONFIG/METRICFRE QPAT	ui.cfg	--	--
PROFCONFIG/METRICOUTLIERS	ui.cfg	--	--
PROFCONFIG/METRICOUTMAX	ui.cfg	--	--
PROFCONFIG/METRICOUTMIN	ui.cfg	--	--
PROFCONFIG/METRICPC TINTERVALS	ui.cfg	--	--
PROFCONFIG/METRICPERCENTILES	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

DM Studio v. 2.2 Settings	Data Management Studio File	dfPower Setting	dfPower File/Registry
PROFVIEW/METRIC7	ui.cfg	Metric7	HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
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

DM Studio v. 2.2 Settings	Data Management Studio File	dfPower Setting	dfPower File/Registry
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 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/ QKB 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/CANA DA	(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	--	--

DM Studio v. 2.2 Settings	Data Management Studio File	dfPower Setting	dfPower File/Registry
VERIFY/USERDI	app.cfg	VERIFY/USERDI	(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
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 dfPower Studio to 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 Data Management Platform v. 2.2. 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 v. 8.1 to v. 2.2 table or are Accelerator macros, 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 v. 2.2 specific configuration files.

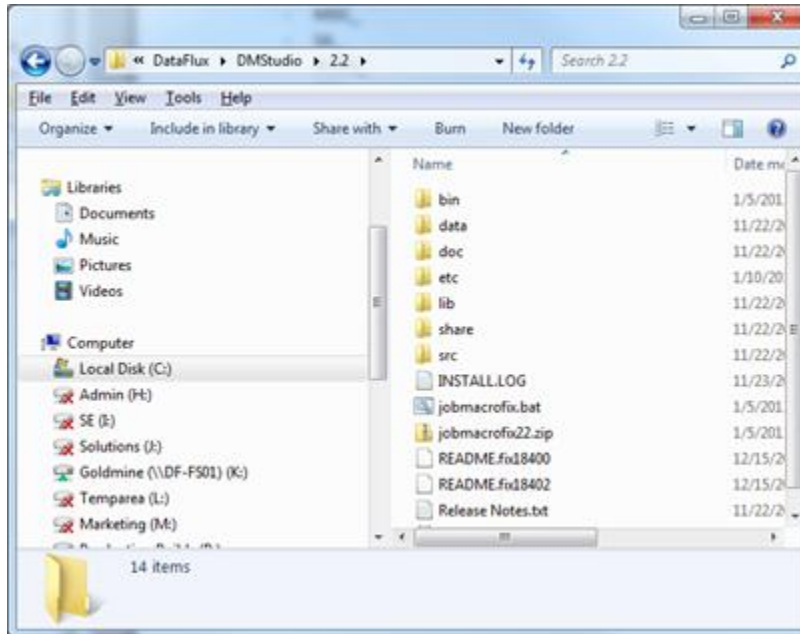


IMPORTANT! If you see a macro that is not user-defined and believe it is a DataFlux setting, please contact DataFlux technical support.

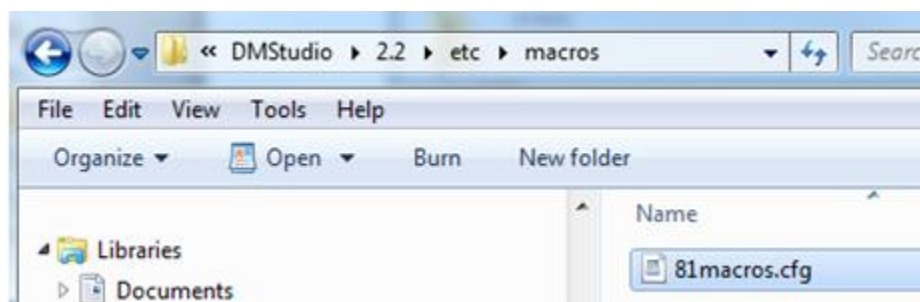
For example, in v. 8.1 there is a macro called OUTPUT_PATH that needs to be moved over.

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

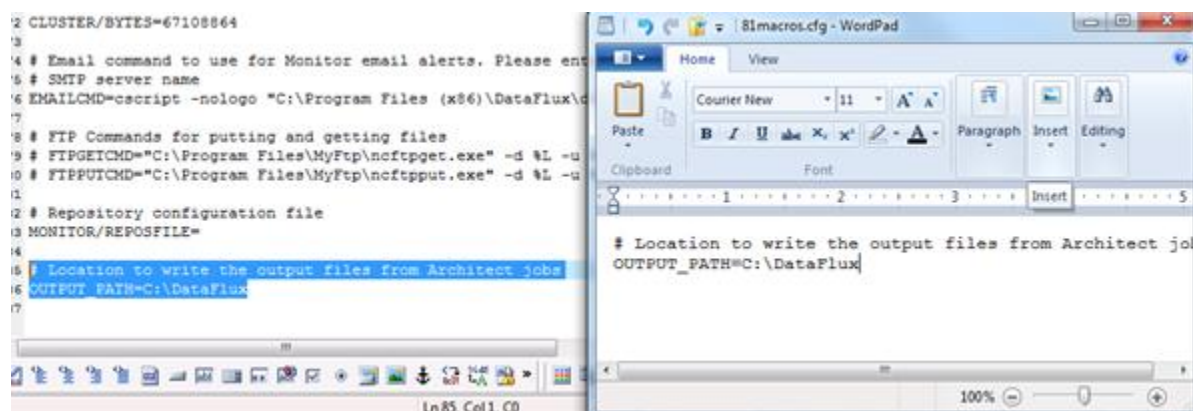
Go to Windows Explorer and navigate to the install root for Data Management Studio, in this case it is the default C:\Program Files (x86)\DataFlux\DMStudio\2.2.



Go into the etc\macros directory and create a new text file called 81macros.cfg. You will need to confirm the change of the extension from .txt to .cfg, click **Yes**.



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 v. 8.1 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, for example match codes. This is because changes in the QKB can result in a slightly different match code being generated.

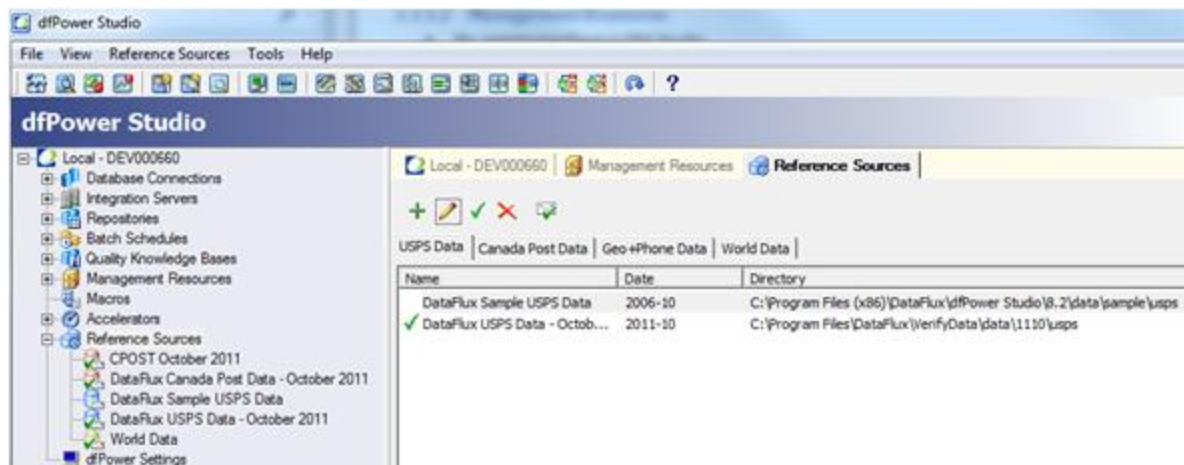
If you are using dfPower Studio v. 8.2 and you are not changing QKBs as part of your migration, see [Migrating From dfPower Studio v. 8.1/8.2 to Data Management Studio v. 2.2](#) for more information on how to configure Data Management Platform so that it will use data quality functions as they were used in dfPower 8.2.

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

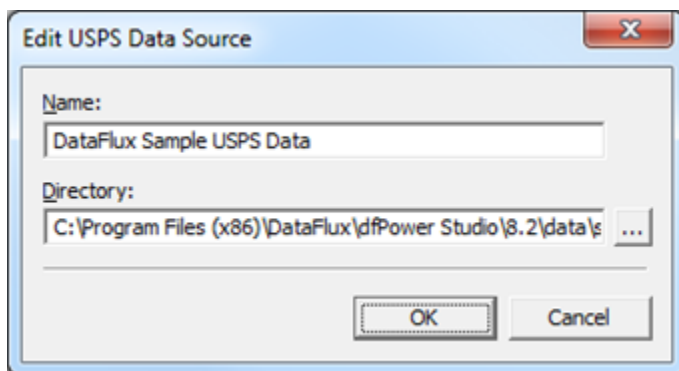
Reference Sources

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

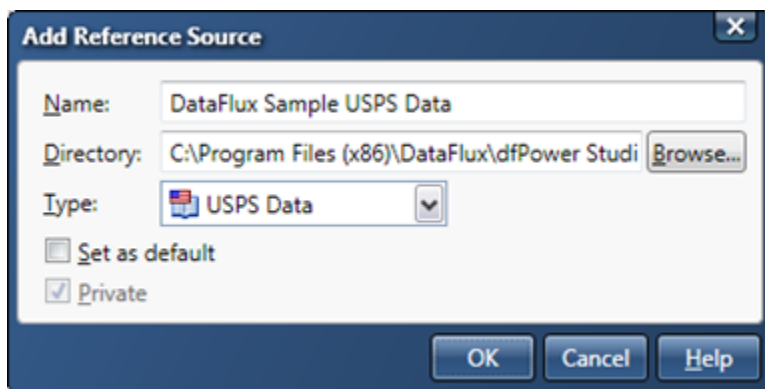
In dfPower Studio open Reference Sources.



Click on the properties for each line under the USPS Data, Canada Post Data, GEO+Phone Data, and World Data tabs.



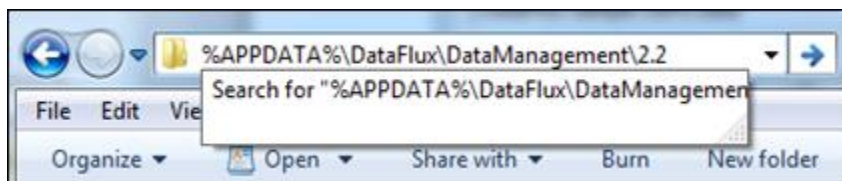
Copy the Name and Directory into the **Add Reference Source** dialog in Data Management Studio which is found in the Administration riser bar under the Reference Sources folder.



The one difference here is that you need to make sure the type reflects the dfPower tab where the information is coming from.

Make sure to check the **Set as default** option if this reference source should be used during job execution. If Private remains selected, this will set the proper values in the app.cfg located in %APPDATA%\DataFlux\DataManagement\2.2 (Note you can copy that string and

paste into Windows Explorer and it will take you to the correct location. If the location does not exist, it is because you have not run Data Management Studio yet. These directories will be created when the application is run for the first time.) If this installation is being shared with others, it is recommended to also un-check the Private option. This will store the setting in the system app.cfg file.



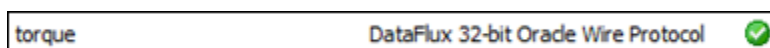
Data Connections

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

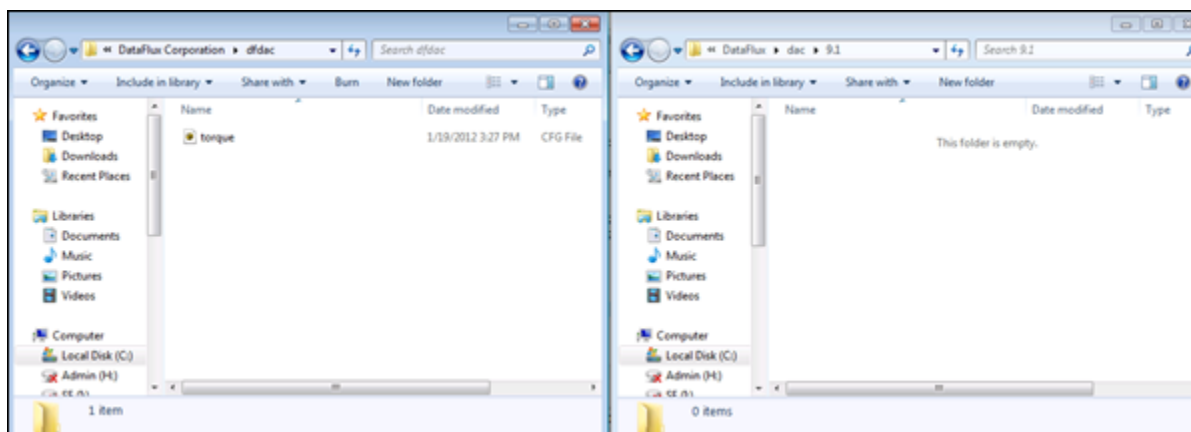
ODBC data connections that are defined on the machine will be upgraded automatically to the latest version of the DataFlux ODBC drivers. This means that both dfPower Studio and Data Management Studio will be using the same version of ODBC drivers.

The only action you will need to take 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.

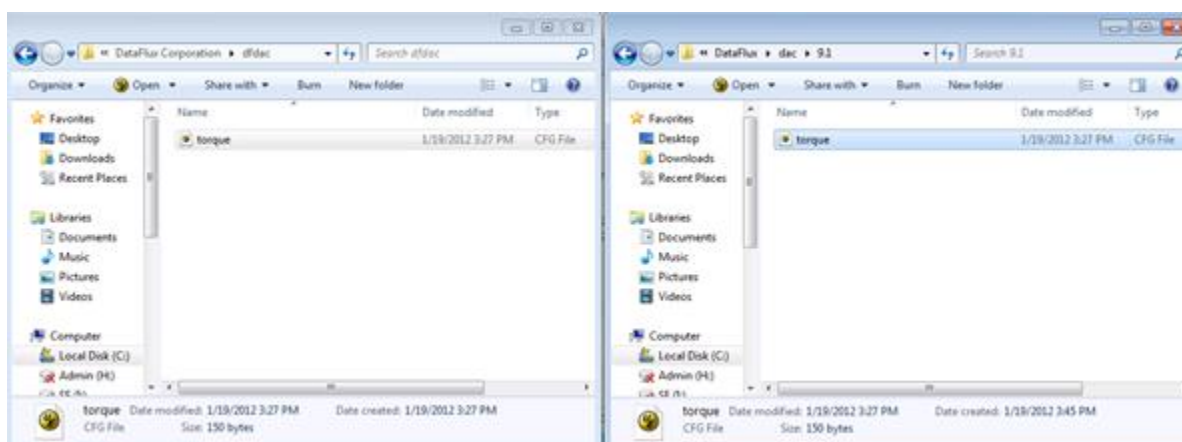
In dfPower Studio v. 8.1, there is the following connection with saved credentials



This correlates to a file in %APPDATA%\DataFlux Corporation\dfdac:



Copy this file to %APPDATA%\DataFlux\dac\9.1:



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

Data Connections			
New Data Connection			
Name	Description	Type	User Credentials Saved
DataFlux Sample	Microsoft Access Driver (*.mdb)	ODBC connection	no
Oracle test	DataFlux 32-bit Oracle Wire Protocol	ODBC connection	no
torque	DataFlux 32-bit Oracle Wire Protocol	ODBC connection	yes

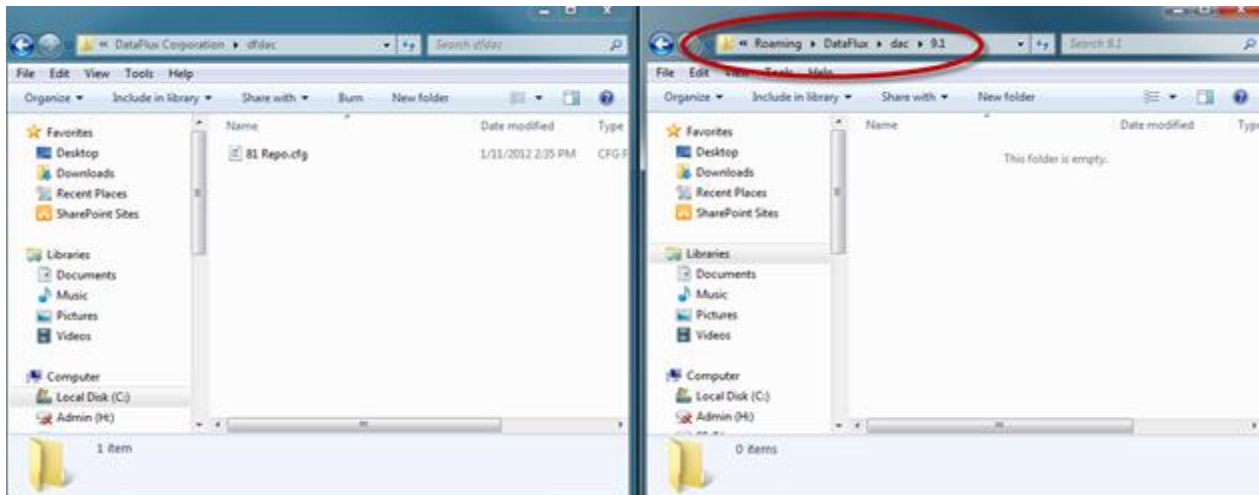
Make sure that all .cfg files are in %APPDATA%\DataFlux\dac\9.1.

You can use the [DataFlux Tool utility](http://xyz.com) to help with this process. This can be retrieved from <http://xyz.com>. To copy over the saved credentials, open a command prompt and run:

```
> cd [DM_Studio_Install_Root]\
> dftool
```


Then answer the next two questions by typing **1** and then **1** again. Here are some images that display these steps:

First, confirm there is not anything in the dac\9.1 folder.



Next, open the DOS prompt and run the command:

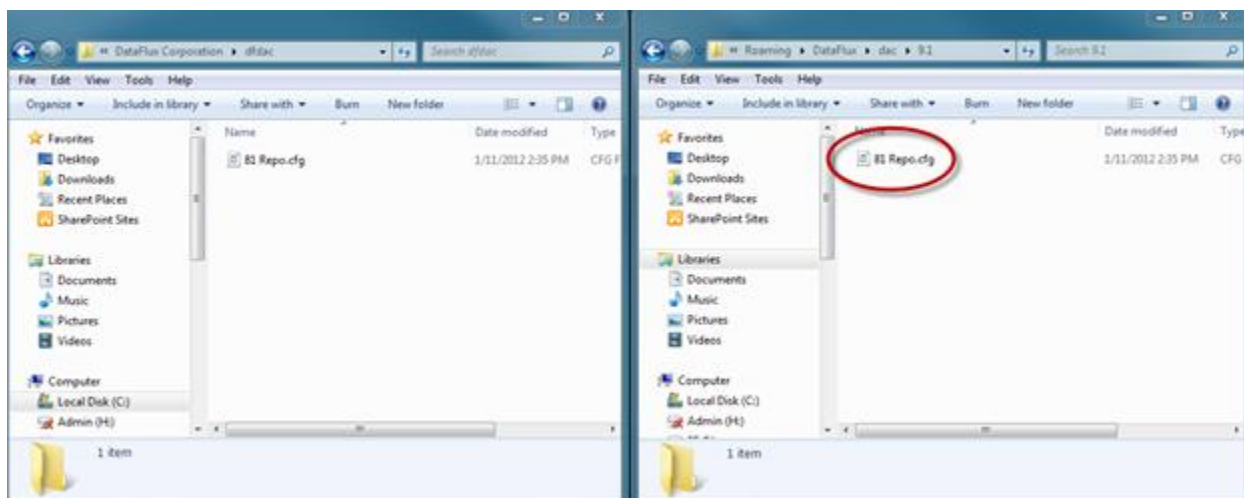
```
Administrator: Command Prompt

C:\>cd "C:\Program Files (x86)\DataFlux\DMStudio\2.2"
C:\Program Files (x86)\DataFlux\DMStudio\2.2>dftool
Please enter an action to take or help for more information
 1 COPY
 2 MACROFIX
 3 REPOSCOPY
 4 REPOSCREATE
 5 REPOSDROP
 6 REPOSUPGRADE
 7 REPOSCOPYUPGRADE
 8 STRESS
 9 HELP

Please pick a number: 1
What would you like to copy?
 1 8.1/8.2 saved credentials to 2.2
 2 2.1 saved credentials to 2.2
 3 2.1 users settings to 2.2
 4 CUSTOM

Please pick a number: 1
Log File : C:\Program Files (x86)\DataFlux\DMStudio\2.2\MyLogfile.txt
C:\Program Files (x86)\DataFlux\DMStudio\2.2>
```

Now, go back and confirm the config file was moved over:



Repositories

This section will review how to migrate file-based as well as DBMS-based dfPower Studio repositories to Data Management Platform.

Migrating a file-based Repository that will not be managed by a Data Management Server 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 Data Integration Server
- The migrated repository will not be managed by a Data Management Server

In general, you will 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. You will copy the dfPower repository to an appropriate folder in that structure. When you run the New Repository Definition wizard, you will specify the location of the copied dfPower repository and the location of an empty set of folders. Later, you will copy Architect jobs into these folders, as described in Copy Architect Jobs to the File Storage Area of the Repository.

Migrating a DBMS-based Repository that will not be managed by a Data Management Server 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 Data Management Server
- The migrated repository will not be managed by a Data Management Server

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

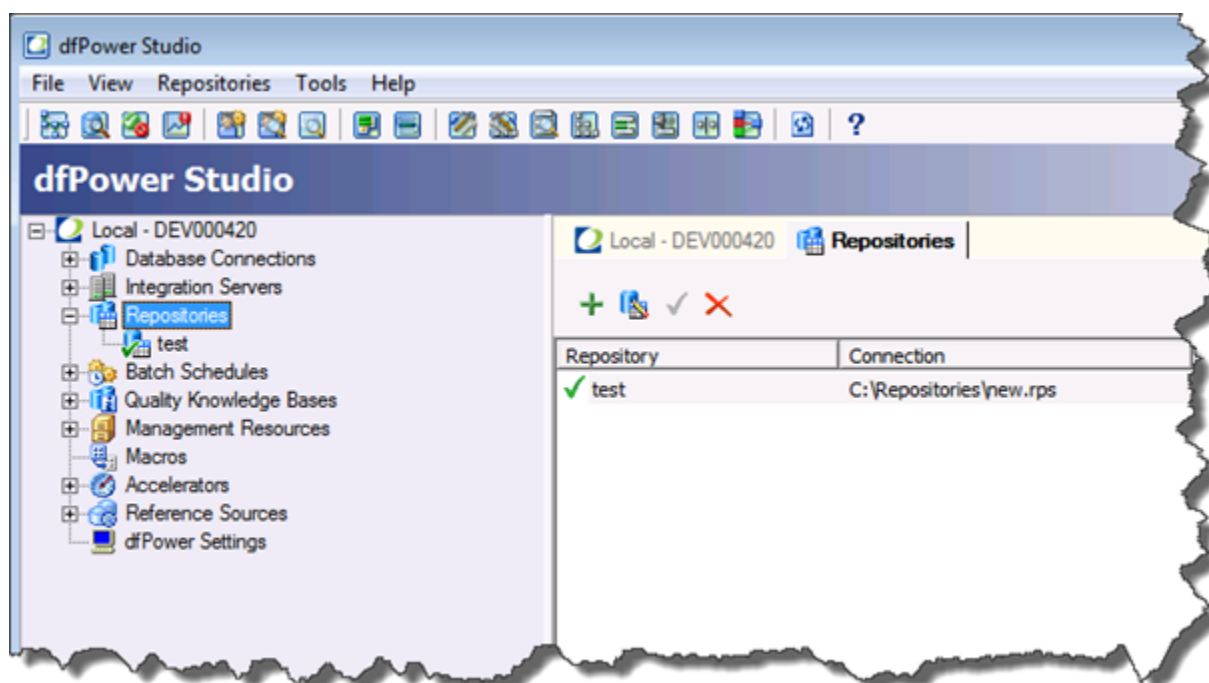
The next few sections provide specific steps to follow to create a Data Management Studio Repository.

- [Copying a File-Based Repository](#)
- [Copying a DBMS-Based Repository](#)
- [Copying Over Files](#)
- [Create the v. 2.2 Repository](#)

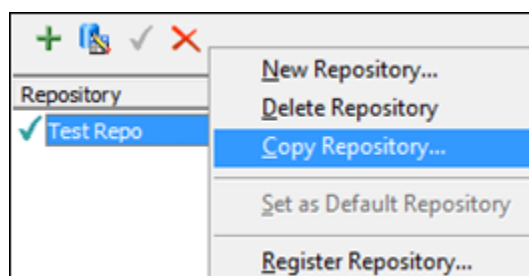
Copying a File-Based Repository

In this section, you will have a step-by-step walk-through on how to migrate a dfPower Repository and Management Resource to a Data Management Platform Repository.

First, back up your dfPower v. 8.1 Repository. This can be done through dfPower Studio. Open dfPower Studio then open the Repositories.

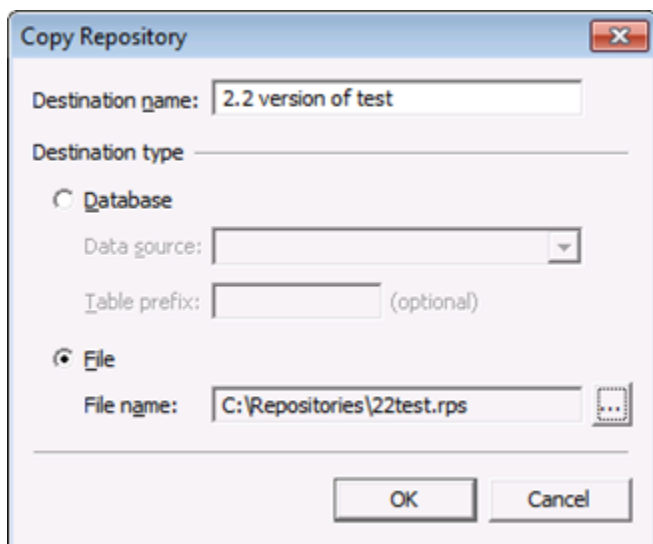


Select and right-click on a repository, select Copy Repository.



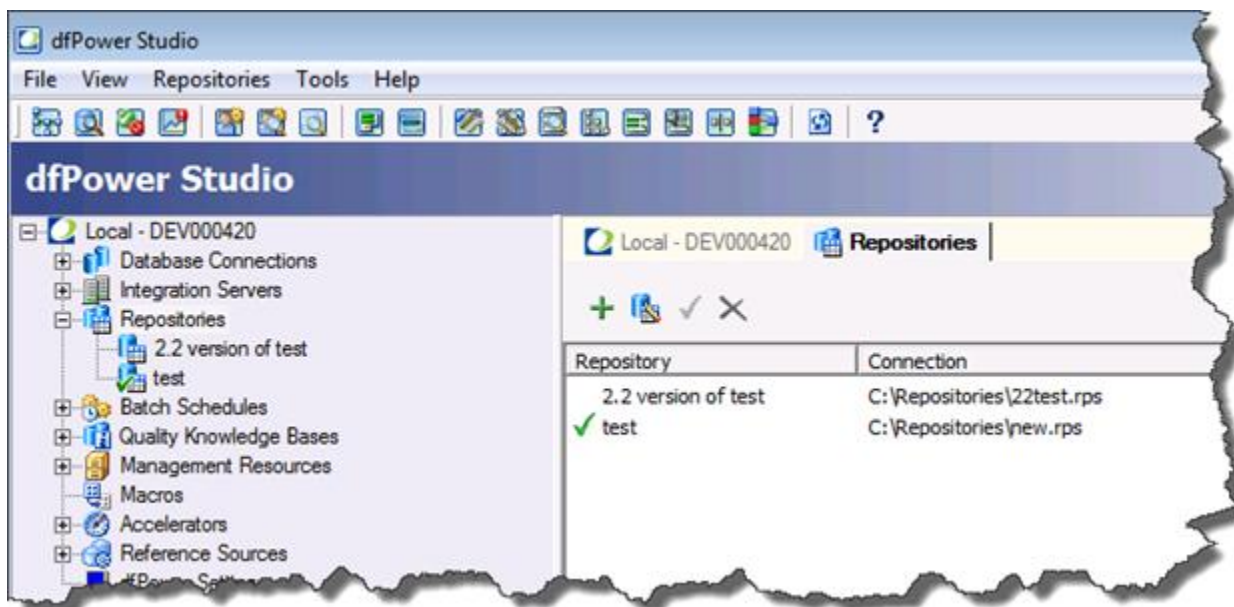
In the Copy Repository dialog, type the necessary information in the available fields. This information is specific to your needs.

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



The 'Copy Repository' dialog box is shown. It has a title bar with a close button. The 'Destination name' field contains '2.2 version of test'. The 'Destination type' section has two radio buttons: 'Database' (unselected) and 'File' (selected). Under 'Database', there is a 'Data source' dropdown and a 'Table prefix' field with '(optional)' text. Under 'File', there is a 'File name' field containing 'C:\Repositories\22test.rps' and a browse button. At the bottom are 'OK' and 'Cancel' buttons.

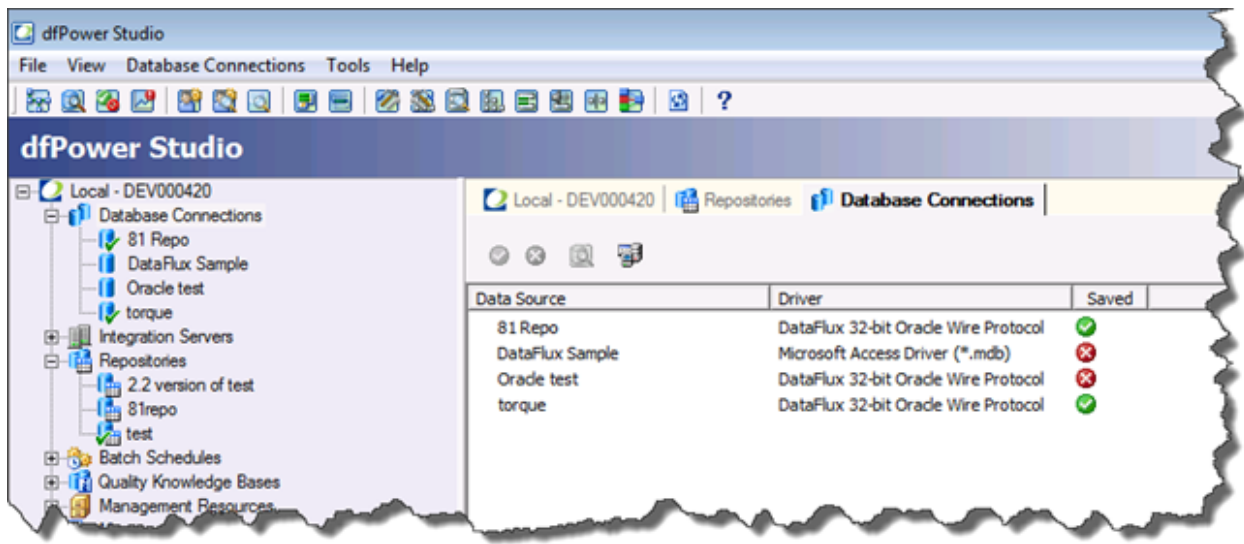
When done you are finished, you should see a copy in the Repository list:



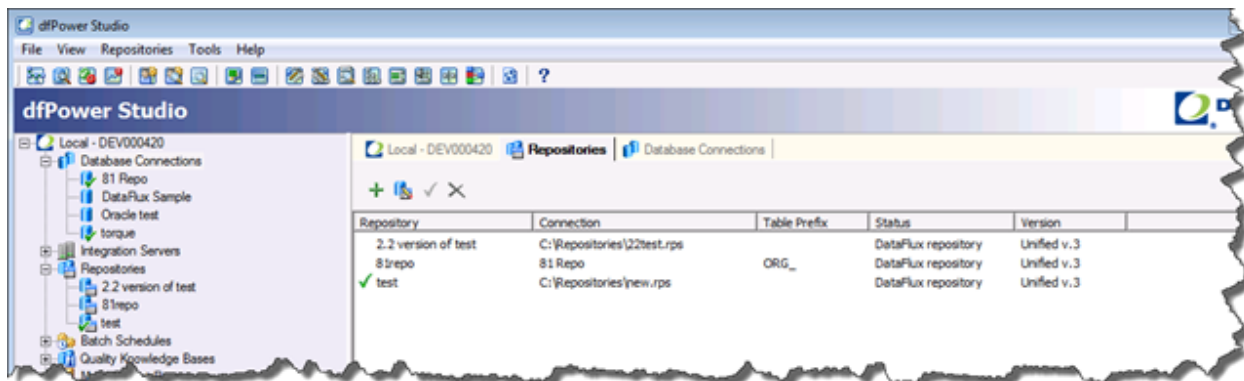
Copying a DBMS-Based Repository

This is an example for a database sourced repository. This example uses Oracle as the database and the approach taken is to create a new schema that will contain the copy. This means that you will have 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.

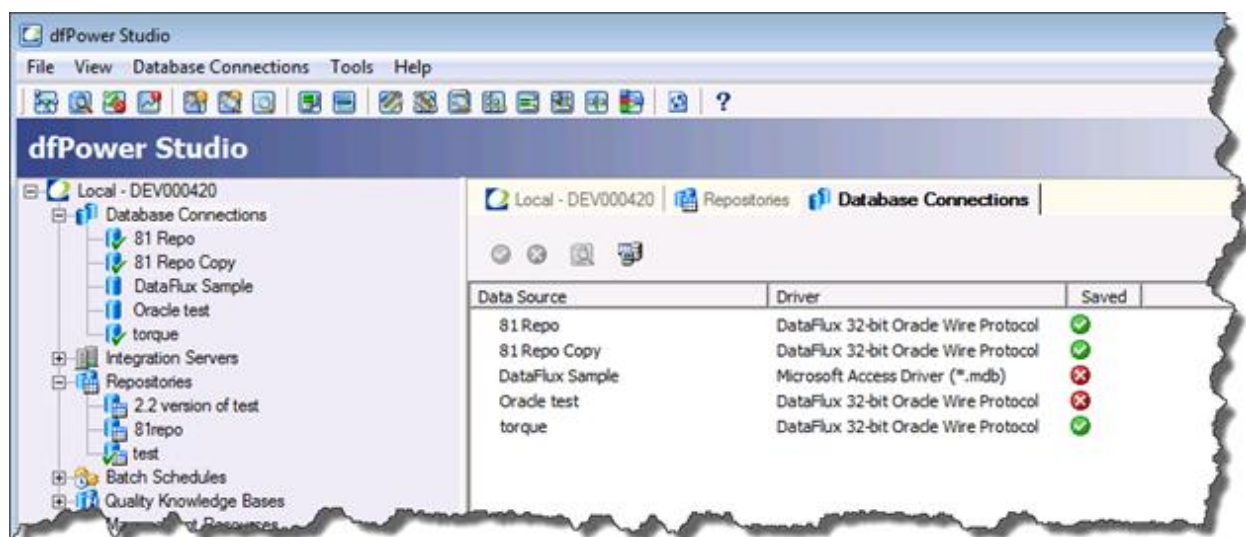
The Database Connections screen looks like this:



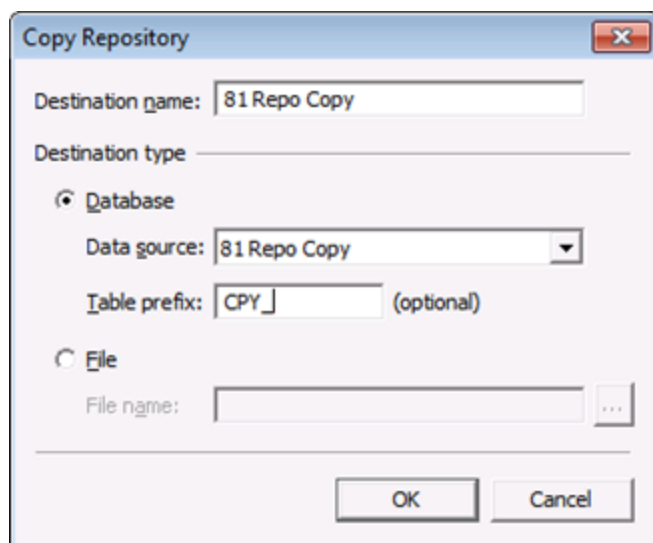
This is the repository screen showing the registered **81 Repo** DSN:



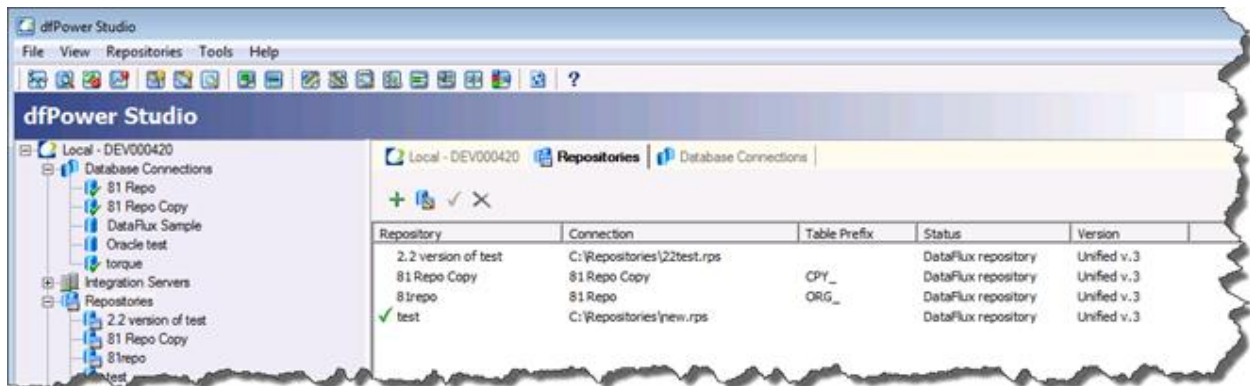
After the second DSN that will hold the copy is created, you will have this in the Database Connections screen:



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



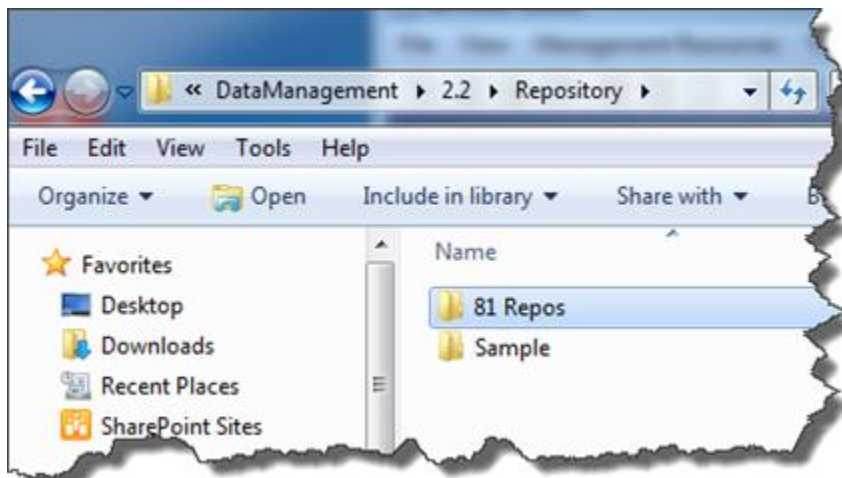
It is highly recommended that the Table prefix option be used to identify this is a copy. Even if the recommendation of putting the copy in a different schema is used, this would be another way to quickly identify that this is not an original repository.



Copying Over Files

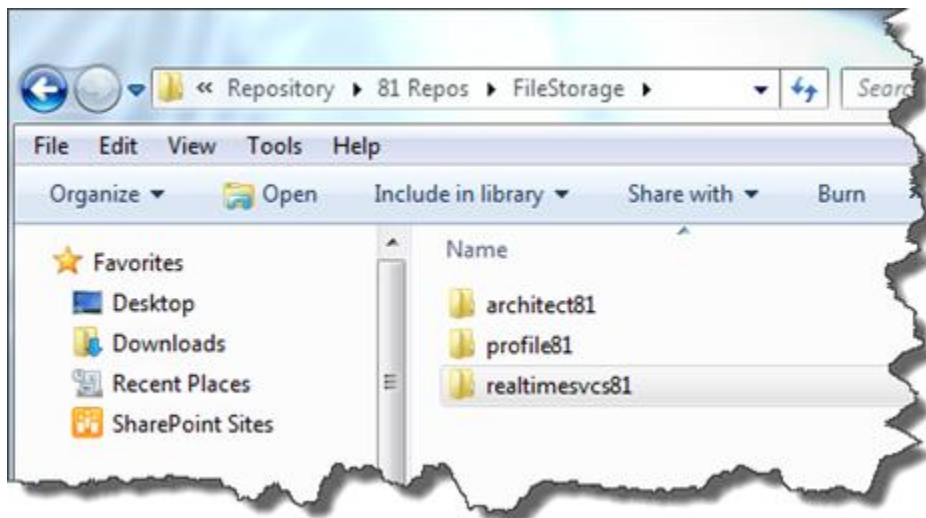
No matter the dfPower repository type, File or DBMS based, before the v. 8.1 version repository can be used to create a Data Management Platform v. 2.2 repository, you must create the file storage aspect of the Data Management Platform repository. To do this, copy the jobs from the Management Resources location to the folder structure you want to use in Data Management Platform v. 2.2. 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. Data Management Studio can handle multiple repositories but Data Management Server can only support one repository connection. This should factor in when trying to organize repositories.

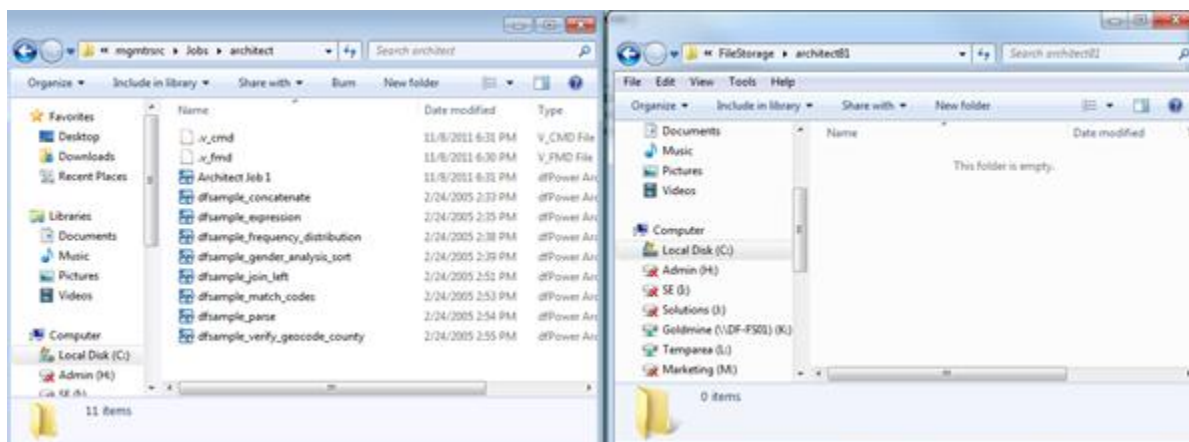
In the 8.1 system, there are three Management Resources locations. All three will be moved to one location for Data Management Platform v. 2.2.



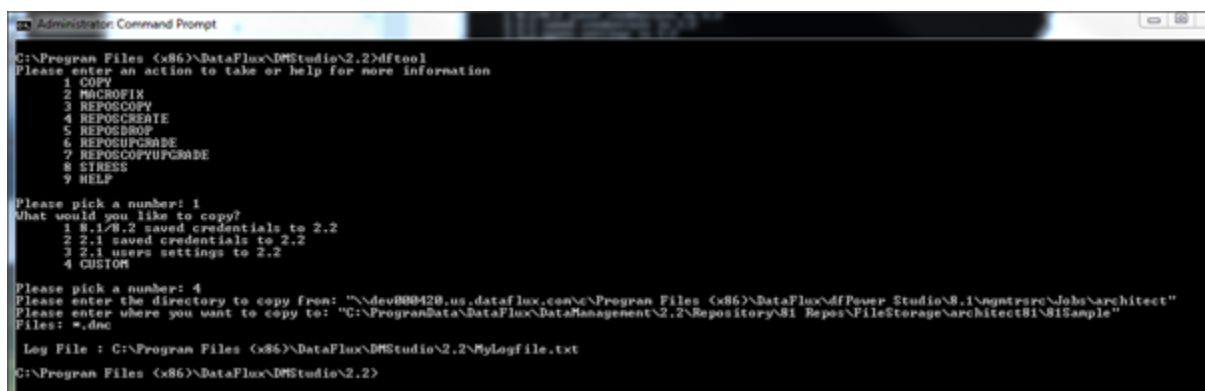
All of the Architect jobs will go into the FileStorage\architect81 folder. The same Management Resources structure will be used. This will make it easier to remember and even synchronize the folder locations post migration.

All Profile jobs will be moved into the FileStorage\profile81 folder and the real-time service jobs will be moved into the FileStorage\realsvcs81 folder. The dftool.bat file will help with this process.

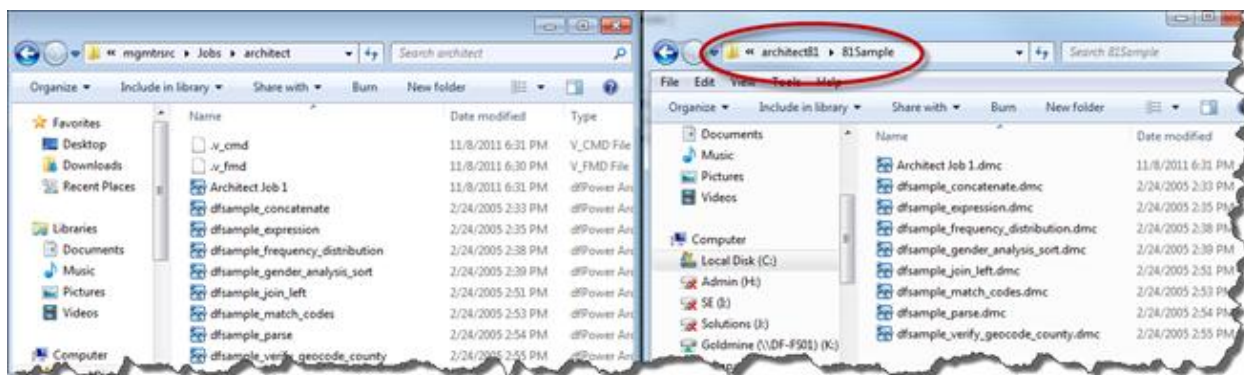
Before you run dftool.bat:



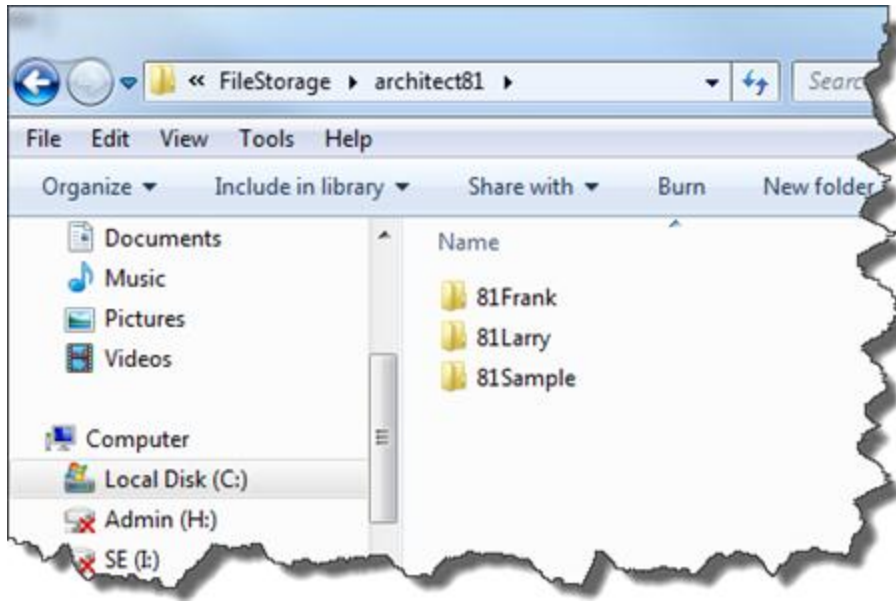
When you run dftool.bat:



When dftool.bat is run, it moves all the Architect jobs over 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 quickly 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 only the file filter *.dmc is moved over for Architect jobs. If everything needs to be moved over leave the Files prompt blank.

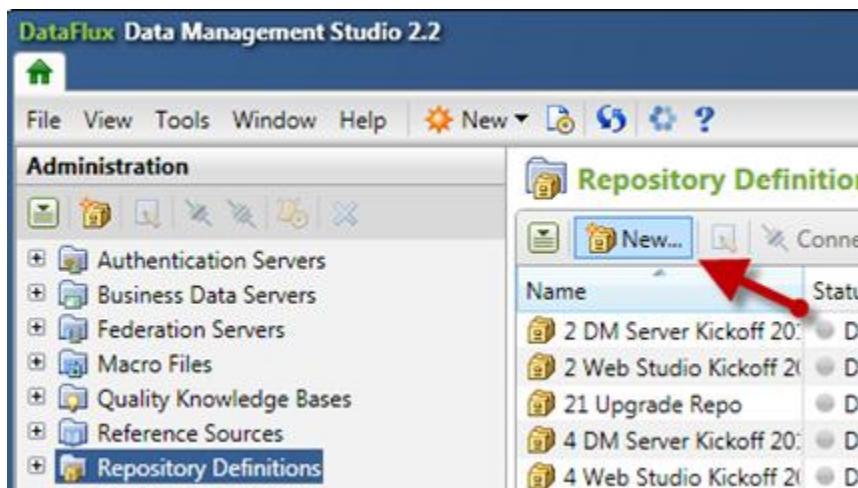


Repeat this for each of the types to be moved over and for each Management Resources location.



Create the v. 2.2 Repository

Once all the jobs are copied into the new locations, you will need to register the copy of the v. 8.1 repository in Data Management Platform v. 2.2. If Data Management Platform v. 2.2 is running on a different system from which dfPower Studio v. 8.1 is running, note that the **81 Repo Copy** DSN needs to be created. In 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.

New Repository Definition

Name: 8.1 Repository

Data storage
Specify a database for the storage of items requiring a database.

☐ Database file
Location: Browse...

☒ Database connection
Name: 81 Repo Copy
Table prefix (optional): CPY_
Test Connection
Save Repository DDL...

File storage (optional)
Specify a folder for the storage of file-based items.
Folder: jement\2.2\Repository\81 Repos\FileStorage Browse...

☒ Connect to repository at startup
☒ Private

OK Cancel Help

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

New Repository Definition

Name: 21 Repository Copy

Data storage
Specify a database for the storage of items requiring a database.

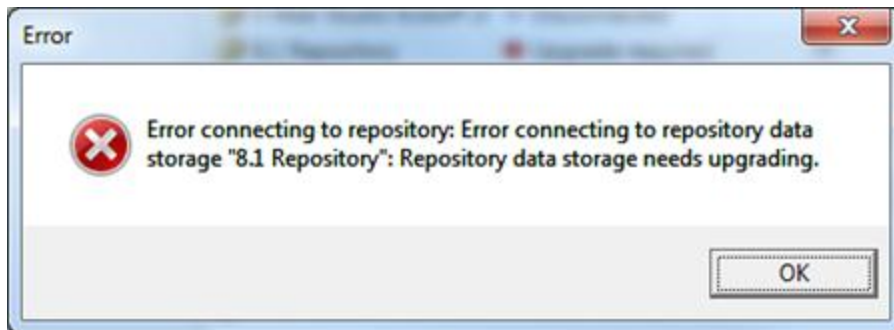
☒ Database file
Location: C:\Repositories\22test.rps Browse...

☐ Database connection
Name:
Table prefix (optional):
Test Connection
Save Repository DDL...

File storage (optional)
Specify a folder for the storage of file-based items.
Folder: nent\2.2\Repository\21repocopy\FileStorage Browse...

OK Cancel Help

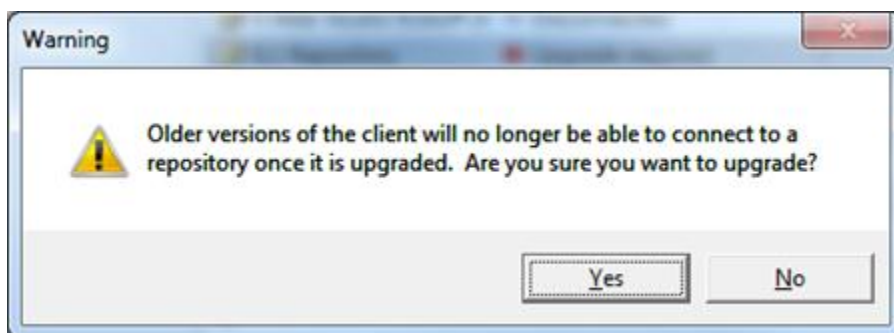
When you save the Data Management Studio configuration, Data Management Studio will notify you that the repository needs to be upgraded. This is OK and a good sign that the system has recognized that you have an older version and it needs to be updated.



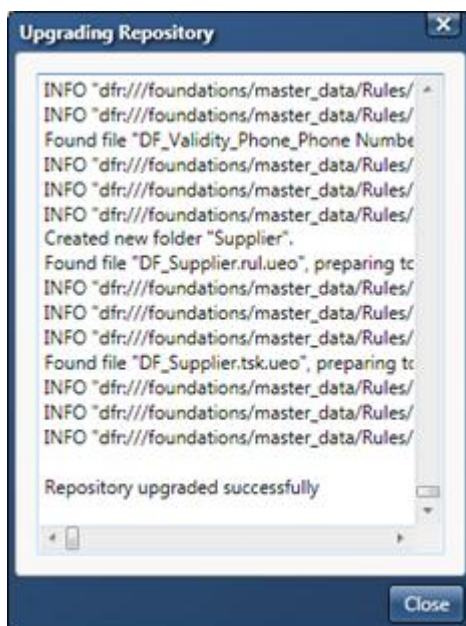
Click **OK**. You should now see something that indicates that the repository needs to be upgraded. Right-click on the repository and choose **Upgrade**.



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



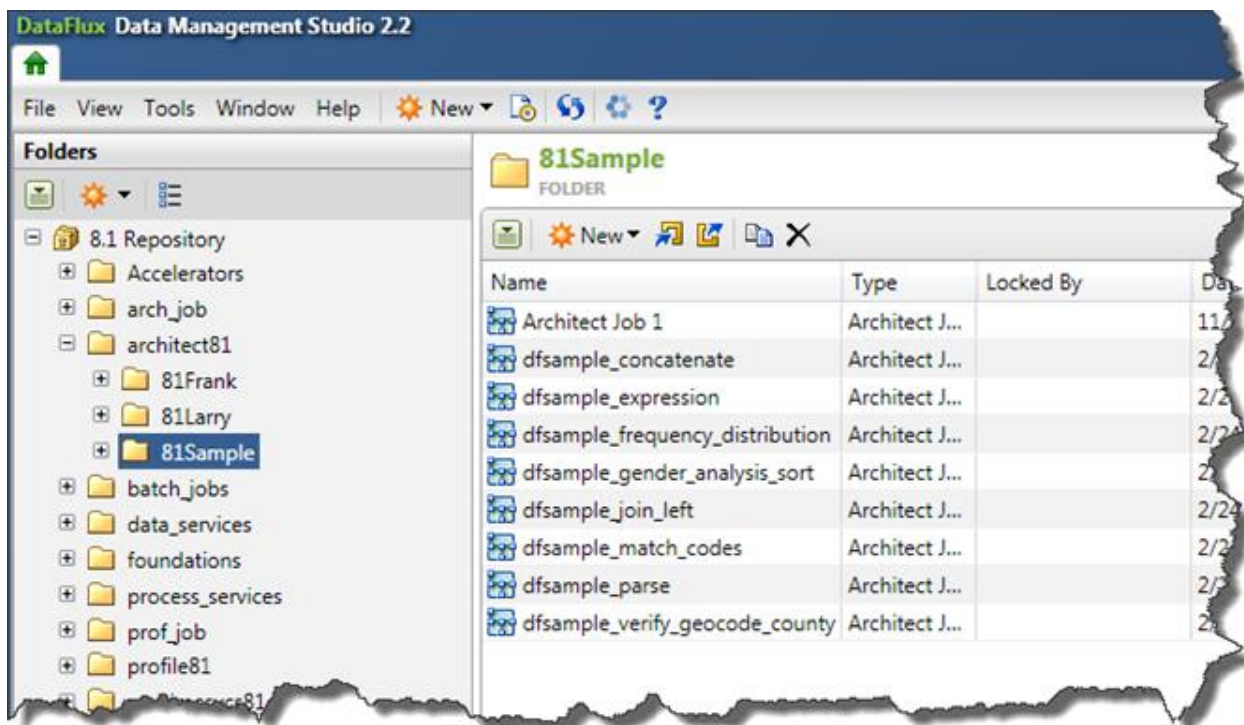
The upgrade process will run and when it is finished, you will see a confirmation that the upgrade completed successfully.



When the upgrade is done, connect to the repository, you will see an indication that you are connected to the repository.



Also, the Folders riser now displays the contents.



Now that the jobs have been moved over, you need to upgrade them so they can be edited and/or run in Data Management Studio.

You should be able to bring up the Business Rule Manager and confirm that all the dfPower Studio Tasks, Rules and other objects are available in the Data Management Platform 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 Master Data Management Foundations feature in Data Management Platform v. 2.2. For more information about this feature refer to the 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 dfPower Studio repository, as described in [Migration Scenario: No dfPower Repository, One or More Management Resources](#).

In general, you will 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, you will specify the location of an empty folder where the new Data Management Studio repository will be added. You would also specify the location of an empty set of folders.

Later, you will copy Architect jobs into these folders, as described in [Copy Architect Jobs to the File Storage Area of the Repository](#).

Complete the following steps:

1. Create an empty folder structure to hold the new Data Management Studio repository and related assets, as described in [General Planning for Repositories](#).
2. Run Data Management Studio.
3. Click on the **Administration** riser bar. Then select the Repository Definitions folder in the Administration tree. The Repository Definitions pane displays on the right.
4. In the Repository Definitions pane, click **New** to create the new repository. The New Repository Definition dialog appears.
5. Enter the name of your repository in the Name field.
6. In the Data storage section of the dialog, specify a new Database file for the 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 will specify in the next step. This practice prevents manipulating the file through 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, specify an appropriate, empty folder from Step 1. For example, you could specify a path such as C:\New_Repos_C\File_Storage. (Later, you will copy unconverted dfPower Architect jobs to this area and save converted copies of these jobs to the same area.)
8. Click **OK** to save the new repository. You will get a message that asks if 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, as described in [Copy Architect Jobs to the File Storage Area of the Repository](#).

Post-Migration Tasks for Repositories

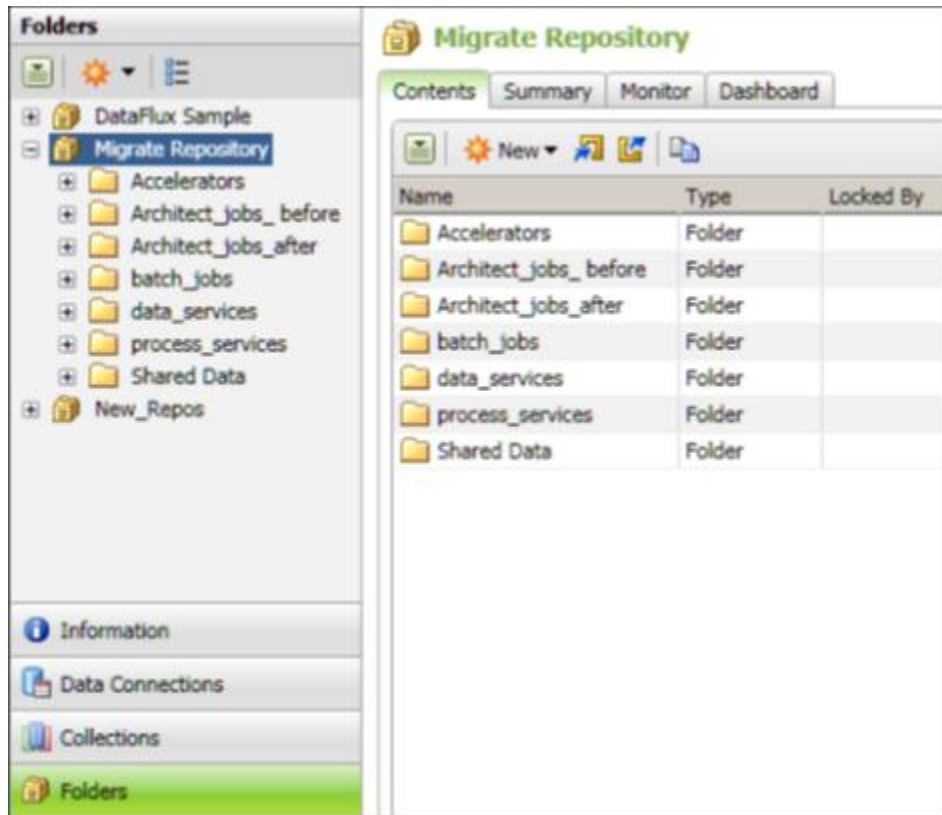
Browsing the Results After Migration

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

1. To explore the contents of the migrated repository, click on 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.

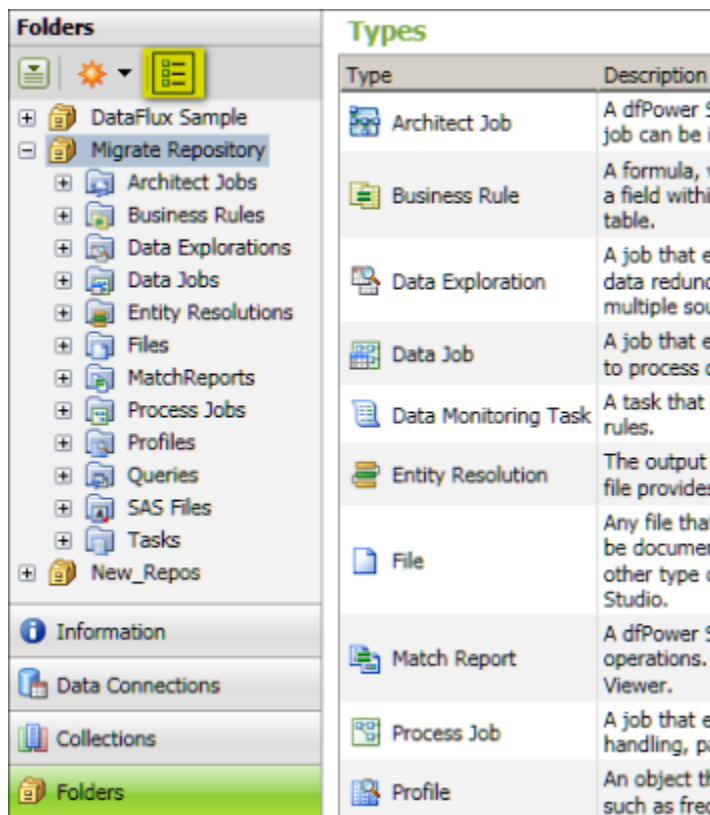
When the Group Items by Type control is not selected, items are grouped into user-defined folders, as shown in the next image.



The migration process will create some user-defined folders automatically, based on any sub-folders 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 dfPower Studio repository (metadata database) have been migrated, not the file-based items, such as Architect jobs, that are stored in any 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 will be 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 dfPower Studio Management Resource.

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

Miscellaneous Post-Migration Tasks

Delete any Data Explorations migrated from dfPower Studio

The migration software will move dfPower Studio Data Explorations into the Folders tree in Data Management Studio. You cannot use these items in Data Management Studio, however, so you can delete them. To delete these items after migration, click the Folders riser in 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 displays on the right. Select all of the Data Explorations that you want to delete, then click the X icon in the toolbar.

Architect Jobs

- [Migrate to a Data Job or a Process Job?](#)
- [Post-Migration Tasks for Architect Jobs](#)


Migrate to a Data Job or a Process Job?

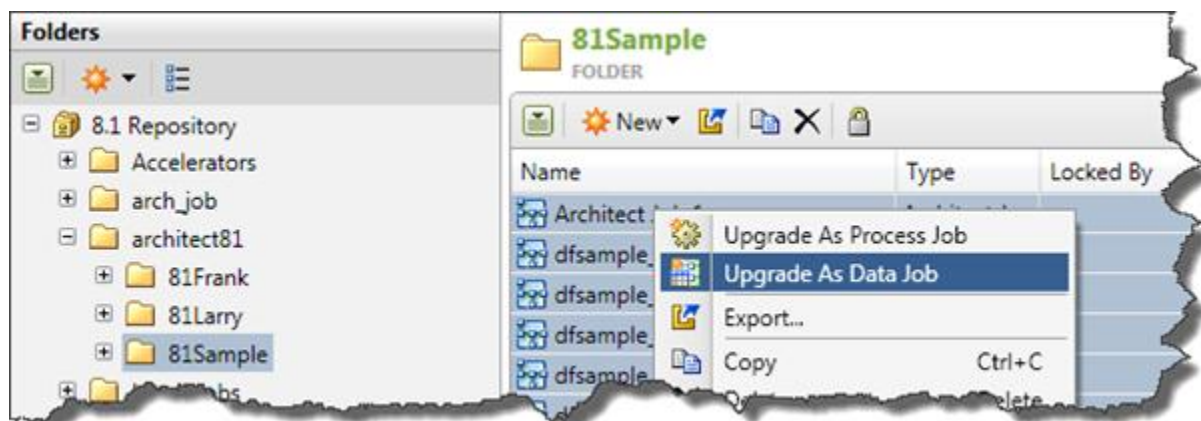
Use the upgrade job wizards to convert an Architect job to a Process job or a Data job, as permitted by the wizards. The wizards evaluate the following conditions:

- 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 allows you to link to it from many Process jobs and only maintain 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.

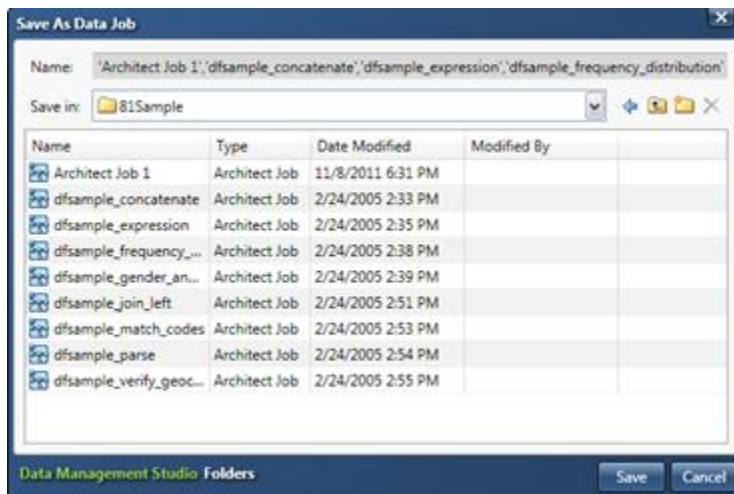
Using the **Folders** riser, you will be able to select jobs and upgrade the jobs. You can do this in batch or one at a time. Refer to [Architect Jobs](#) for additional. This provides some guidance in the planning and decisions that need to be made when converting Architect jobs.

Select the jobs that need to be converted, right-click and select **Upgrade As Data Job**.

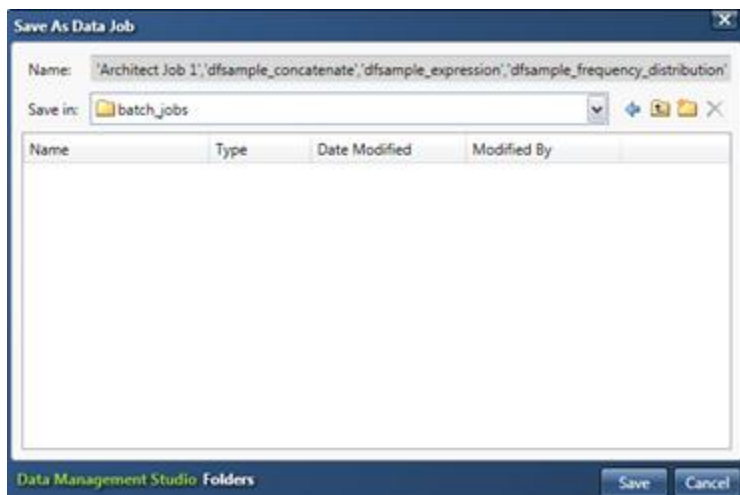
 **Note:** If you have Architect jobs that contain multiple pages they can only be upgraded as Process jobs.



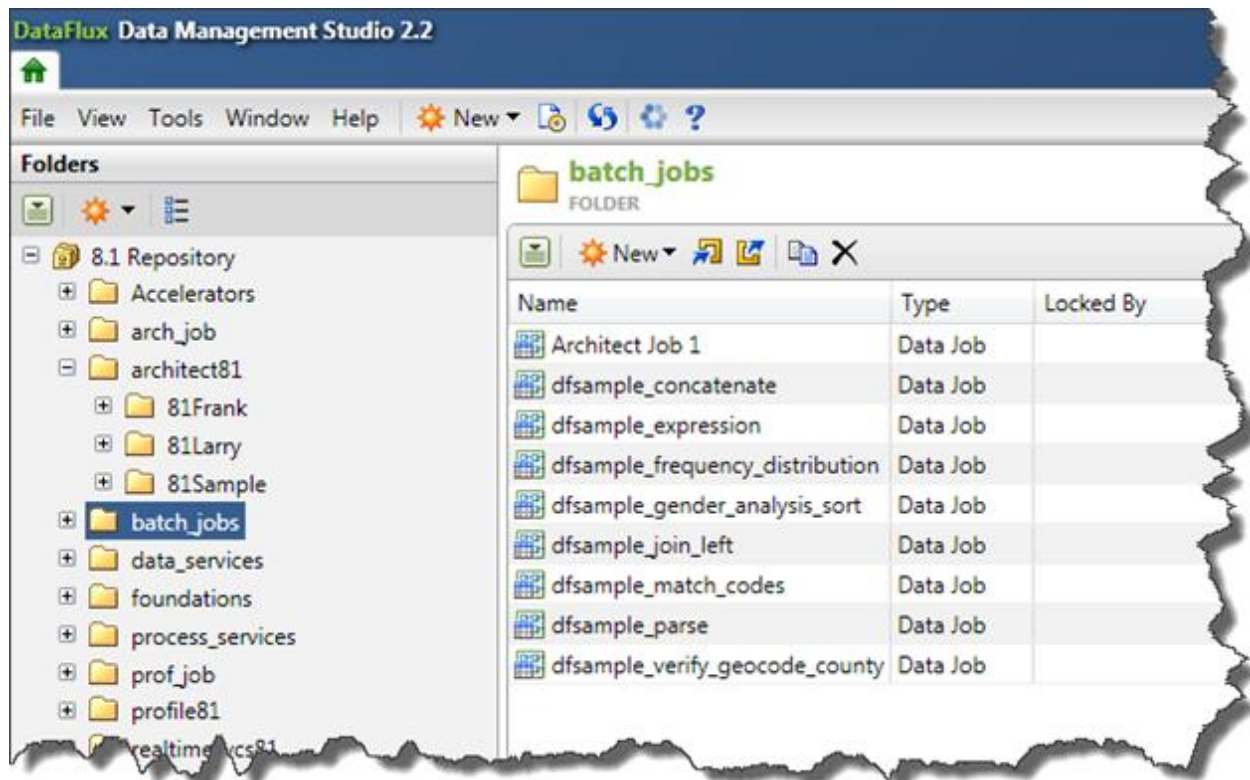
The Save As Data Job dialog appears:



Change the **Save in** directory to the new directory where they need to be saved.




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

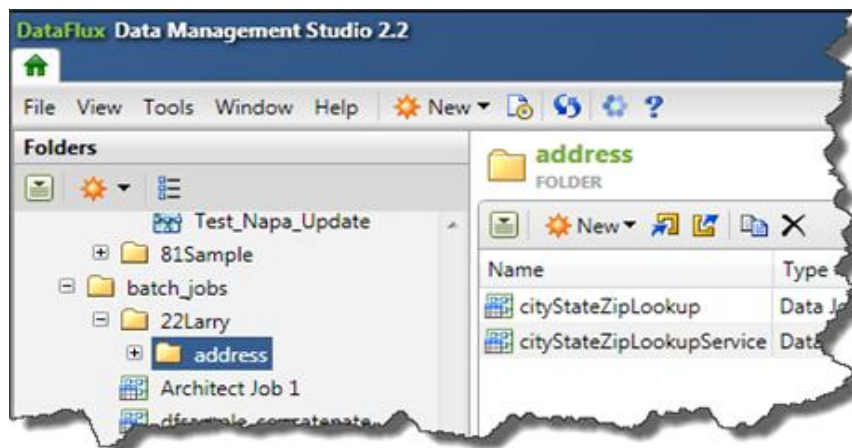


Repeat this process for all Architect jobs.

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 type 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:

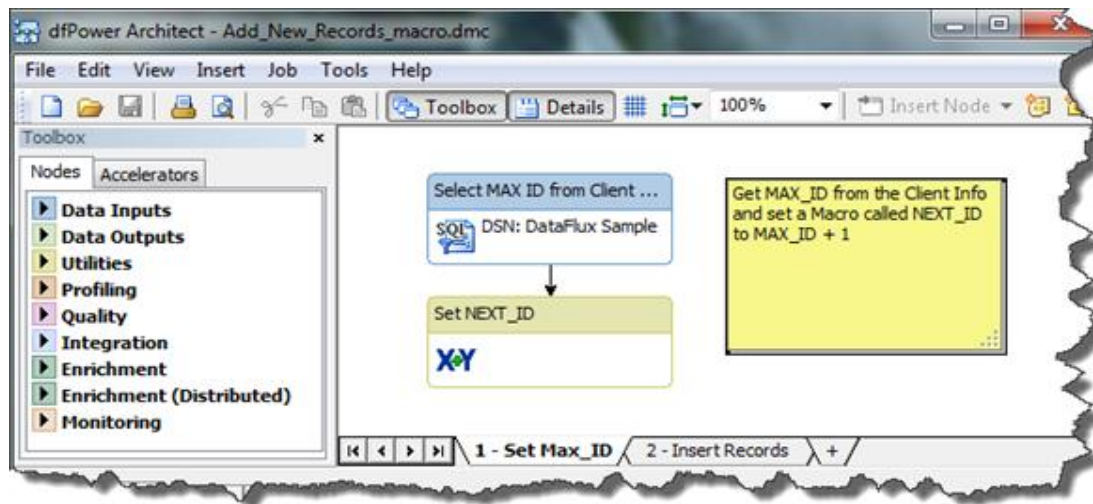
- You had a multi-page Architect job that used the `setvar()` and `getvar()` functions to dynamically pass macro variable values between pages in the job.
- You converted this Architect job to a Data Management Studio Process job.

A multi-page Architect job can use the `setvar()` and `getvar()` functions to dynamically pass macro variable values between pages in the job. A 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 will 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 recreate the same functionality, using input and output variables. This task will be easier if you understand how input and output variables are used in Process jobs, as described in the **Process Jobs** section of the *DataFlux Data Management Studio Online Help*, v. 2.1.1, 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:

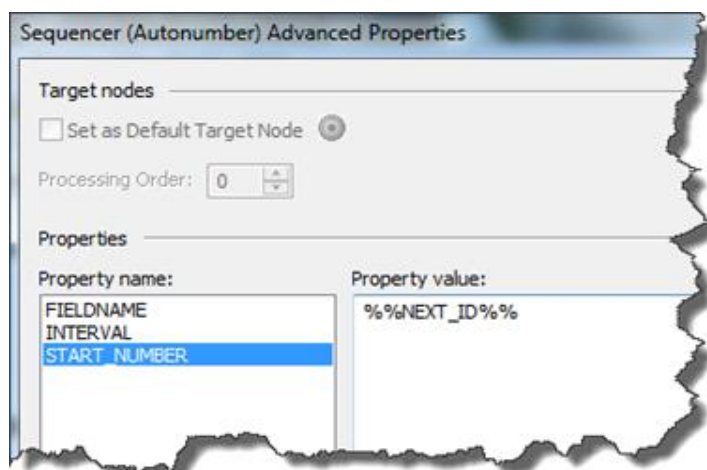


Notice that the job has two pages: Set Max_ID and Insert Records.

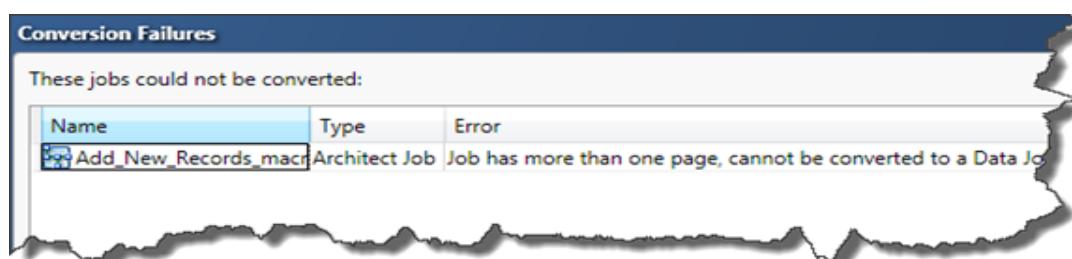
On the Set Max_ID page, the flow increments a macro variable NEXT_ID in the Expression node:

```
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 will be 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, run the DataFlux Tool utility. To run the utility, open a command prompt and run:

```
> cd [DM_Studio_Install_Root]\
> dftool
```

```

Administrator: Command Prompt
C:\Program Files (x86)\DataFlux\DMStudio\2.2>dftool
Please enter an action to take or help for more information
 1 COPY
 2 MACROFIX
 3 REPOS COPY
 4 REPOS CREATE
 5 REPOS DROP
 6 REPOS UPGRADE
 7 REPOS CREATE AND COPY
 8 STRESS
 9 HELP

Please pick a number: 2
Please enter a command [dir!file!rdir!help]: file
Please enter the file to process: C:\ProgramData\DataFlux\DataManagement\2.2\Repos
Please enter a supplemental config file to process [optional]:
Please enter the logging configuration file location [optional]:
Please enter a list of configuration options that are separated by a space:
Please enter the directory in which to locate user configuration files:
Processing File: "C:\ProgramData\DataFlux\DataManagement\2.2\Repos\Sample\FileStorage\batch_jobs\81Sample\Add_New_Records_macro.djf"
Command: "C:\Program Files (x86)\DataFlux\DMStudio\2.2\bin\dftool.exe"
dfTool 2.2.0
Processing WFE job C:\ProgramData\DataFlux\DataManagement\2.2\Repos\Sample\FileStorage\batch_jobs\81Sample\Add_New_Records_macro.djf
Setvar Output -> NEXT_ID added
Macro Input -> NEXT_ID added
Create backup C:\ProgramData\DataFlux\DataManagement\2.2\Repos\Sample\FileStorage\batch_jobs\81Sample\Add_New_Records_macro.djf
C:\Program Files (x86)\DataFlux\DMStudio\2.2>

```

Notice that an Output and Input variable of NEXT_ID have been added. If you look at the job in Data Management Studio, you will have the following Output and Input defined. First, the Outputs for the Data job now represent the **Set MAX_ID** page:

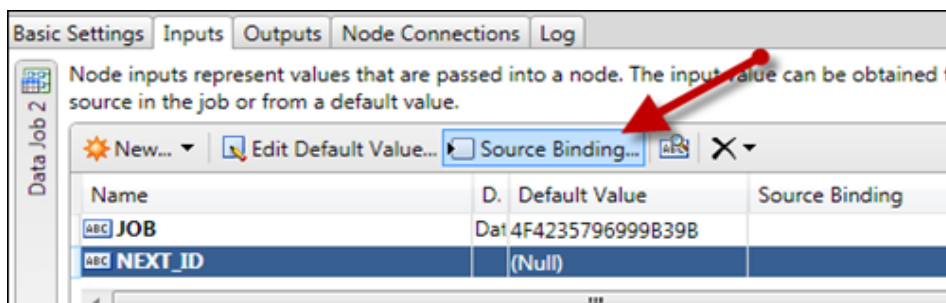
Basic Settings Inputs Outputs Node Connections Log			
Node outputs are values produced by the node after it has finished running.			
Show Run Time Value			
Name	Description	Run Time Value	
ABC FILE_DATA	DataFlow job as xml	(Undefined)	
ABC NEXT_ID		(Undefined)	
ABC ERRORMSG	Node error message	(Undefined)	

Plus the Inputs of the Data job that represent the **Insert Records** page:

Basic Settings Inputs Outputs Node Connections Log				
Node inputs represent values that are passed into a node. The input value can be obtained from binding source in the job or from a default value.				
New... Edit Default Value... Source Binding... X				
Name	D. Default Value	Source Binding	Run Time	
ABC JOB	Data 4F4235796999B39B		(Undefined)	
ABC NEXT_ID	(Null)		Undefined	

For the inputs, there is one more step that you must do, 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 appears.



3. In the **Source Binding** dialog, 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 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

- [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 Data Management Studio job, perform the following steps to verify that the job is working properly. You will need a basic understanding of Data Management Studio jobs, as described in the "Data Jobs" and "Process Jobs" sections of the *DataFlux Data Management Studio Online Help*, v. 2.1.1.

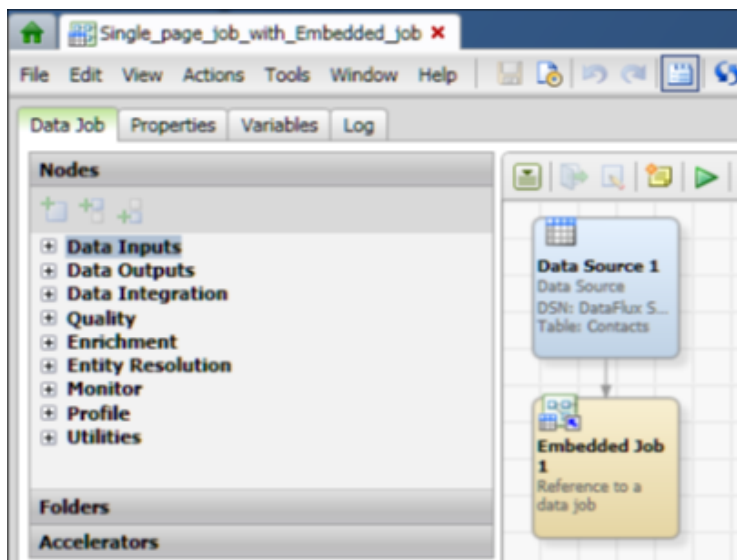
1. Right-click the job in the Folders tree and select **Open**. The job will be opened in a job editor.
2. If appropriate, try to run the job to see if it works as it did before migration. Select **Actions > Run Data Job** or **Run Process Job** from the main menu.
3. The output, status messages, the log, and other indicators will tell you whether the job ran properly and will help you troubleshoot any errors.

Architect Jobs That Use Macro Variables

You will probably have to make some updates in order for dfPower Studio macro variables to work in 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 will be converted to Data jobs with Data Job (reference) nodes, as shown here:



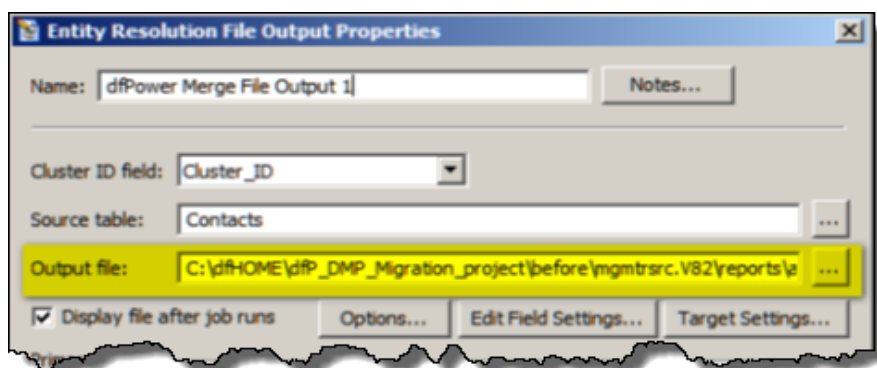
In this image, Embedded Job 1 is a Data Job (reference) node. To pass macro variable values down to the embedded job, right-click the Data Job (reference) node and select **Advanced Properties**. Then specify the macro variable in the KEY_VALUES property.

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 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 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 will not be able to 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:
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 an .SRI extension, the extension will be 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 can only display 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 Data Management Studio, select **Tools > Match Report Viewer**, then navigate to the Match Report output file (.MDF file).

Architect Jobs That Contain Deprecated Nodes

The following dfPower Studio nodes have been deprecated in 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, then use the Data Source node to point to the SAS data sets in that connection.

SAS Data Set Target (insert)

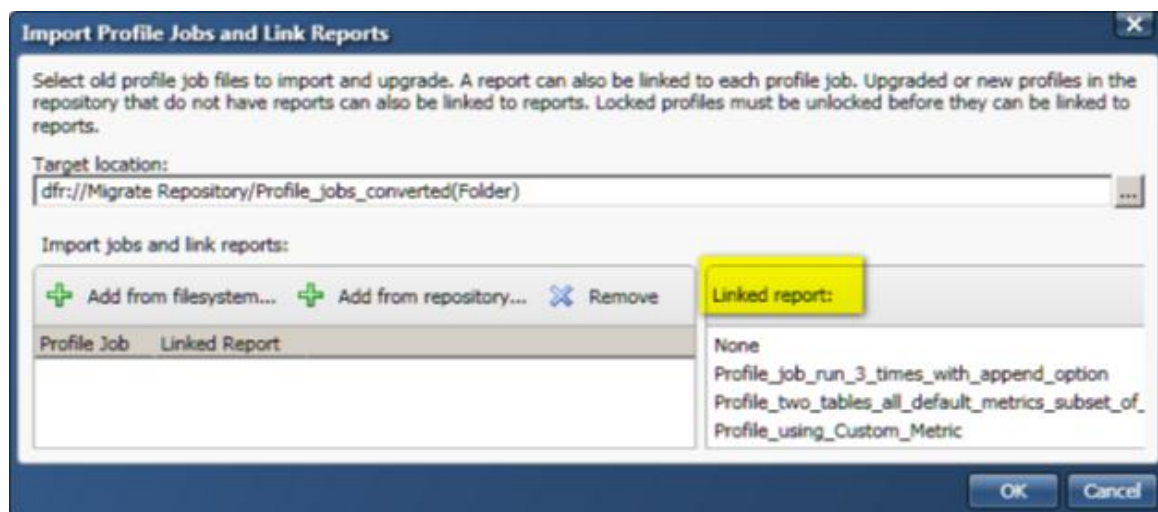
To replace this node, define a SAS data set connection in the Data Connections riser, then use the Data Target (Insert) node to point to the SAS data sets in that connection.

SAS SQL Query

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

Profile Jobs

You will use a wizard to copy dfPower Studio profile jobs and convert the copies to Data Management Studio profiles. If the current repository was migrated from dfPower Studio, and profile reports were saved to the dfPower Studio repository before migration, then these reports will be 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 will not be able to include the dfPower Studio reports in the conversion. You will have to re-create the reports as described in the **Profiles** section in the DataFlux Data Management Studio Online Help, v. 2.1.1.

- [Convert dfPower Profile Jobs to Data Management Studio Profiles](#)
- [Associate Data Management Studio Profiles with dfPower Studio Reports](#)
- [Unlink a dfPower Studio Report from a Data Management Studio Profile](#)

Convert dfPower Studio Profile Jobs to Data Management Studio Profiles

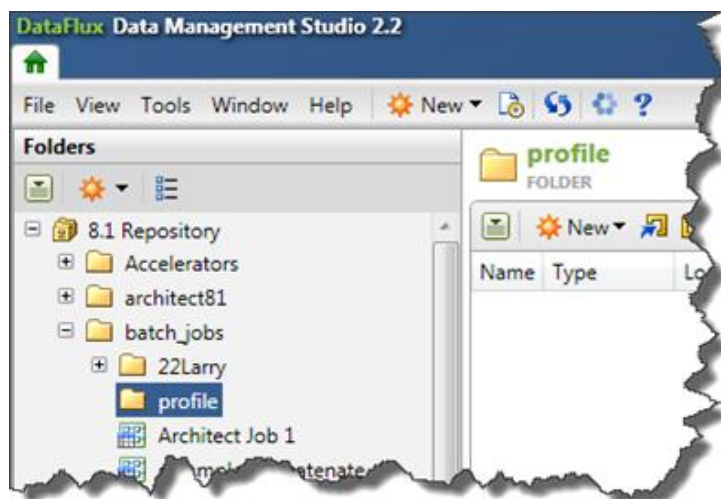
This topic is appropriate when you want to convert dfPower Studio Profile jobs to Data Management Studio profiles. Assume that you have identified a user-defined folder where you will save the dfPower Studio Profile jobs after they have been converted, as described in the Overview. If you want to combine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

- The current repository must have been migrated from dfPower Studio.
- Profile reports must have been saved to the dfPower Studio repository before the repository was migrated.
- You must know the physical path to the profile jobs that correspond to the reports.

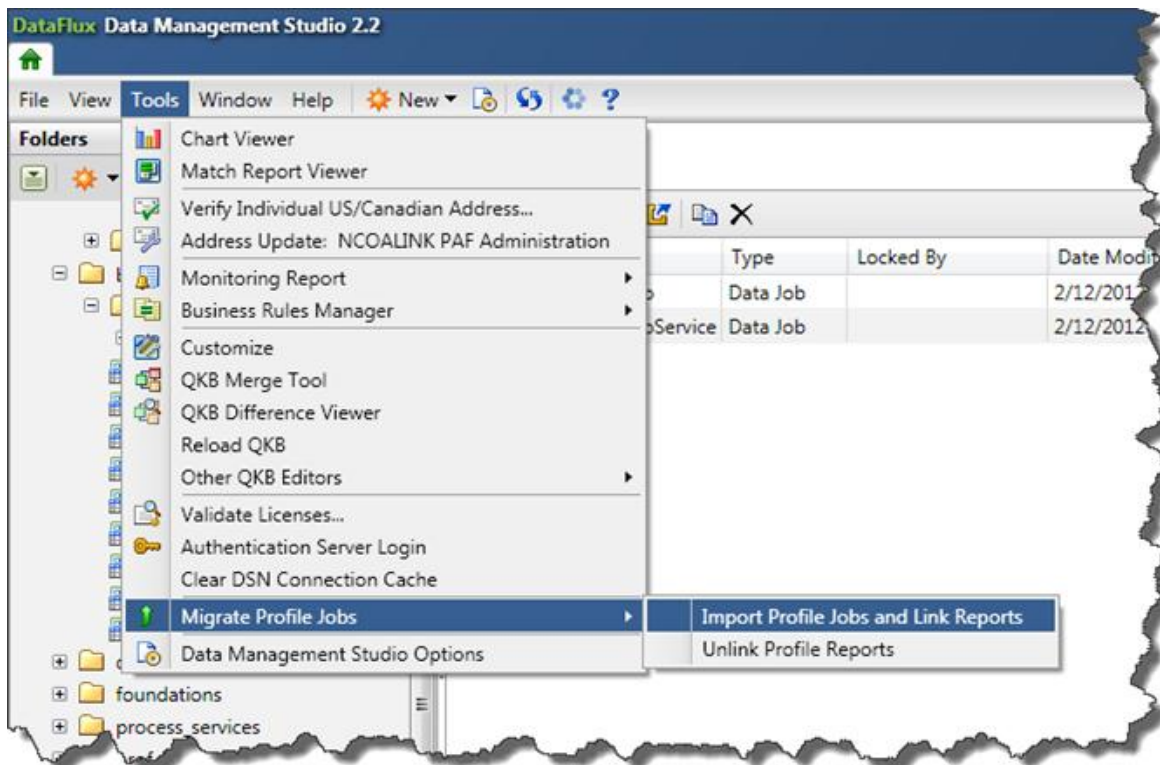
This task is easier if you start by locating the user-defined folder where you will save the dfPower Studio Profile jobs after they have been converted.

Complete the following steps:

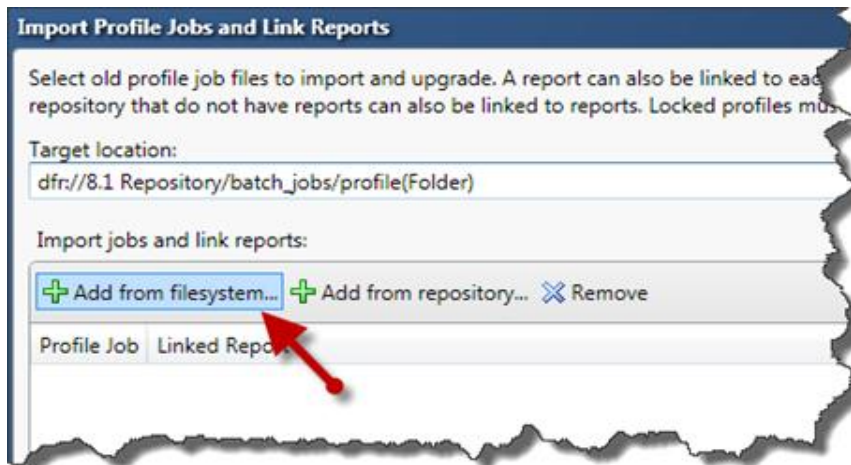
Select where you want to store the file, select the folder in the Folders directory.



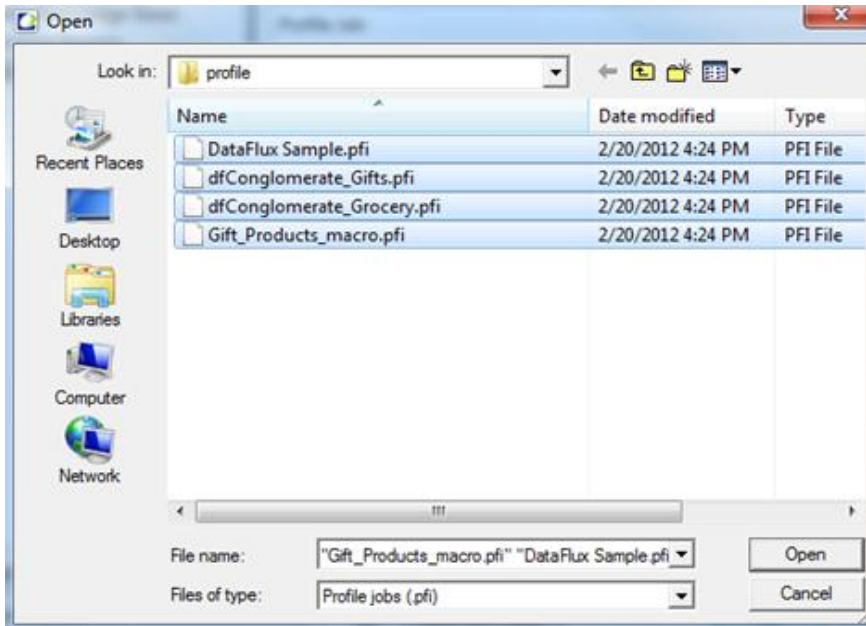
Select **Tools > Migrate Profile Jobs > Import Profile Jobs and Link Reports**.



1. In the resulting dialog, double check the Target location value. If this is not what is expected, make sure to change it, then click **Add from filesystem**.

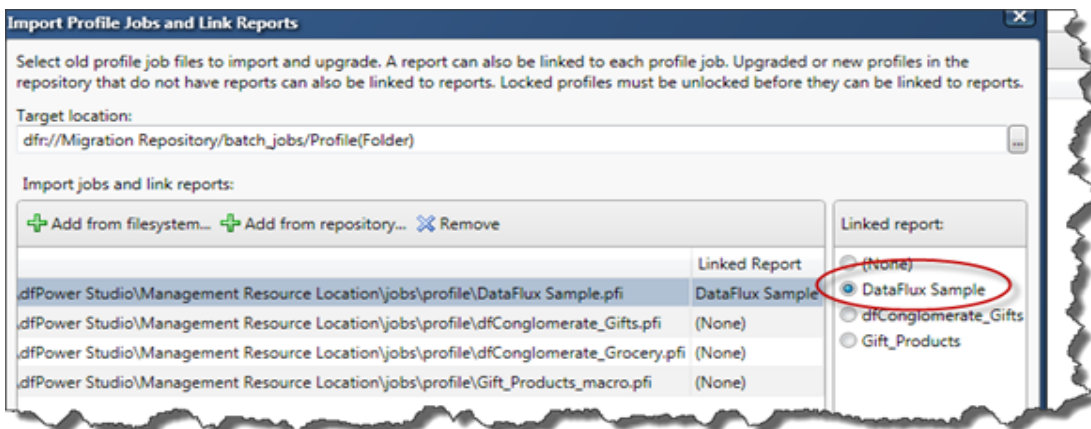


2. Navigate to the folder where the Profile jobs you want to convert are stored. Select one or more of these jobs, then click **Open**. The jobs will populate the Profile Job section of the wizard.

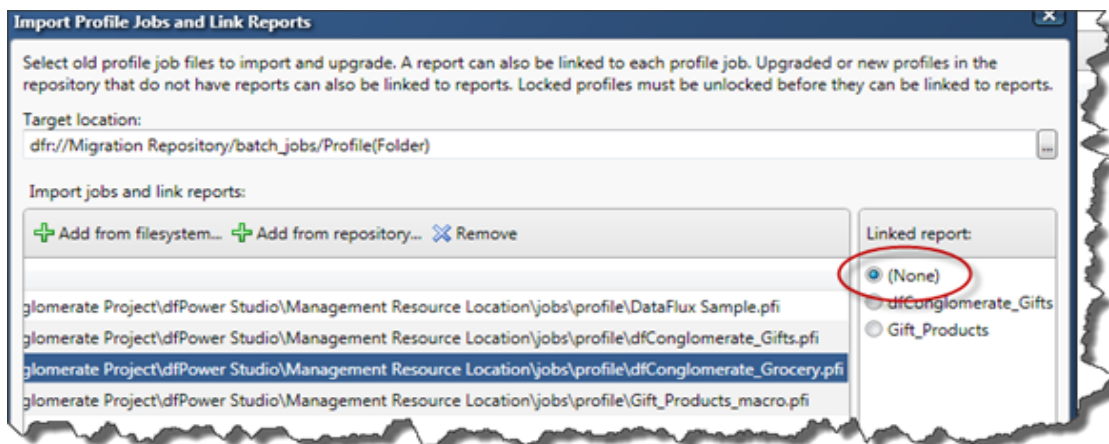


If the current repository was migrated from dfPower Studio, and profile reports were saved to that repository, then these reports will be listed in the Linked report section of the wizard. The wizard does not display reports that have already been linked to migrated Profile jobs using the wizard. If 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.

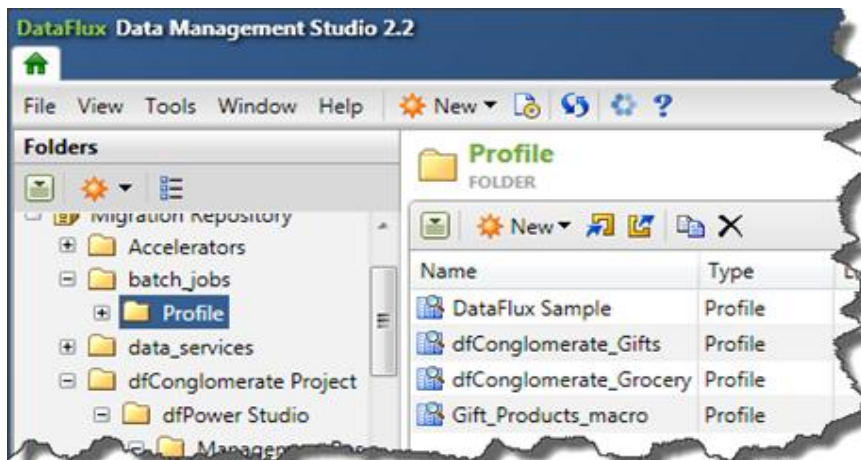
3. When upgrading a dfPower Profile job, you can also link it to any reports that exist in the repository. To link a report to a Profile job, select the Profile job on the left, then select the corresponding report on the right. The linked report should appear in the Linked Report column for the Profile job, as shown here.



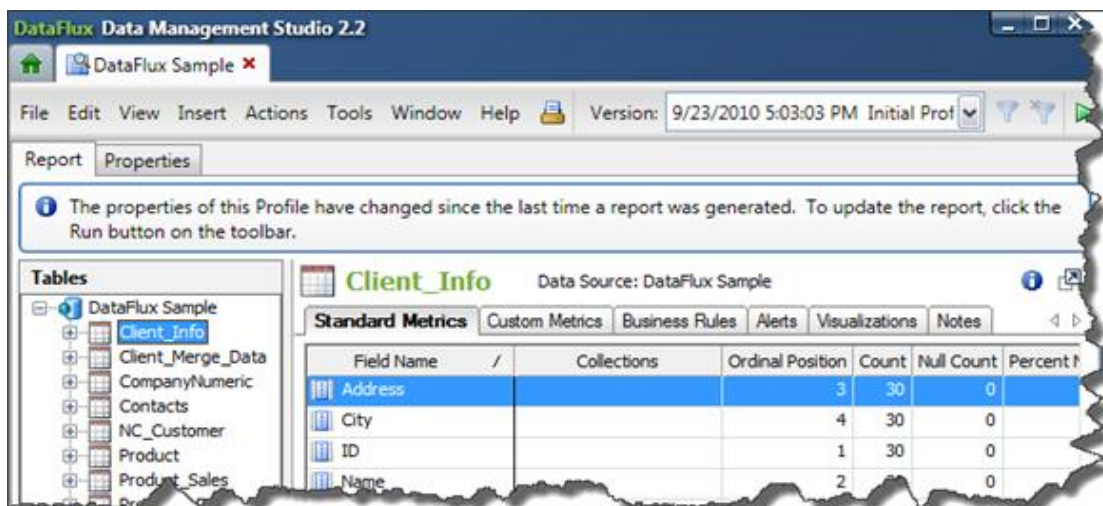
4. Repeat as needed.



5. When finished, click **OK** to convert the profile jobs that are listed in the wizard. The jobs will be 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 that report.



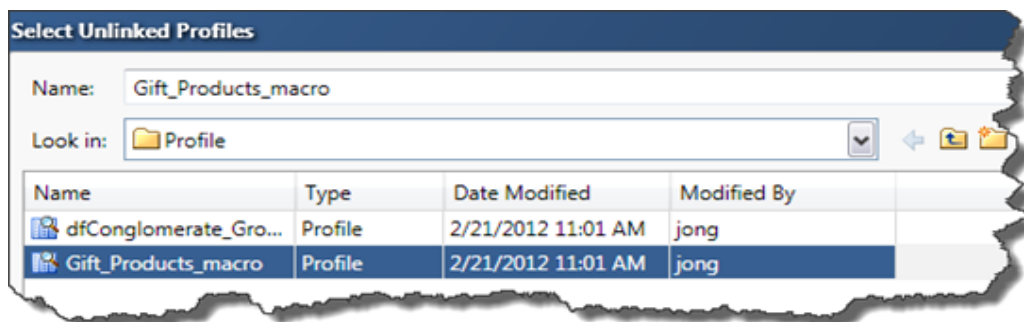
Associate Data Management Studio Profiles with dfPower Studio Reports

This topic is appropriate when you have already converted dfPower Studio Profile jobs to 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 the following Data Management Studio conditions have been met:

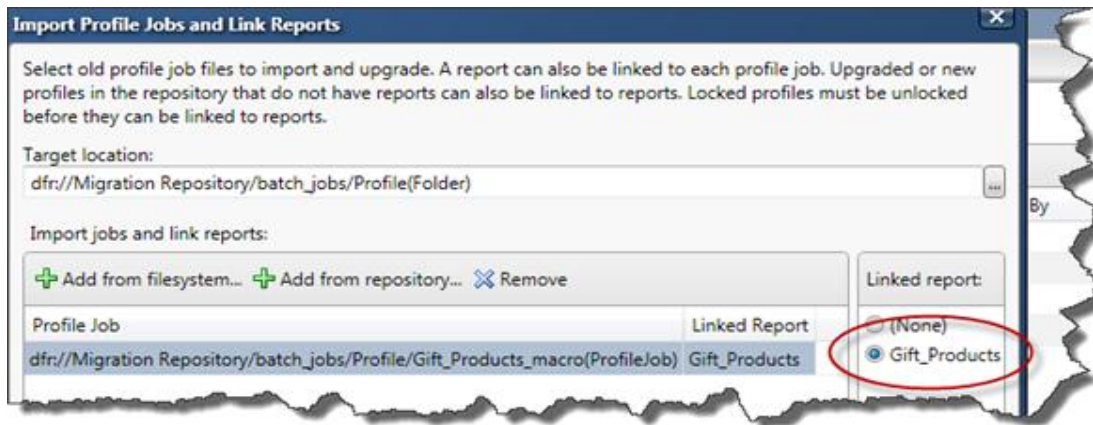
- The current repository was migrated from dfPower Studio.
- Profile reports must have been saved to the dfPower Studio repository before the repository was migrated.
- You know which Data Management Studio profiles correspond to the dfPower Studio reports .

Perform the following steps:

1. While in the Folders riser bar in 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 on the **Add from repository** option. The Select Unlinked Profiles dialog appears.



4. Select one or more of these profiles, then click **Open**. The selected jobs will populate the Profile job section of the wizard.
5. To link a report to a profile, select the profile on the left, then select the corresponding report on the right. The linked report should appear in the Linked Report column for the profile, as shown here.

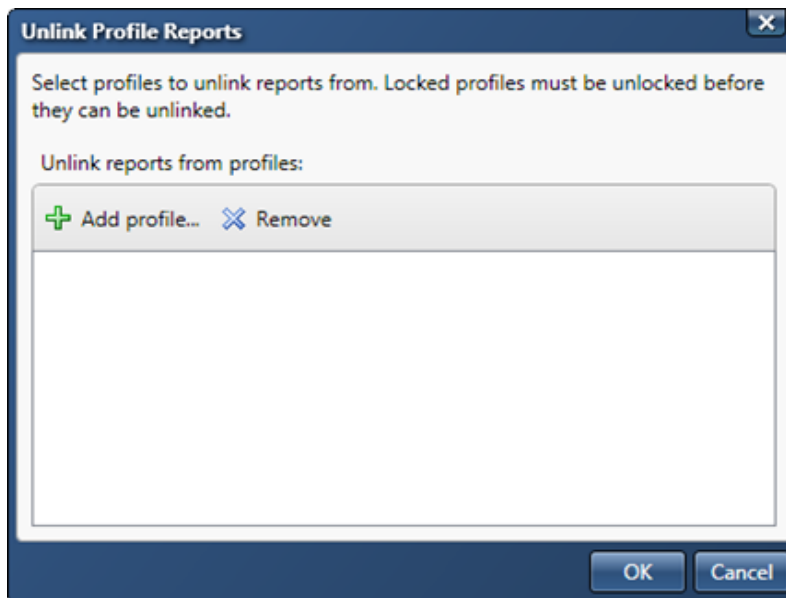


6. Repeat as needed.
7. When finished, click **OK** to link the profile reports and save the profile definitions. The profiles will be saved to the user-defined folder selected earlier in this process.

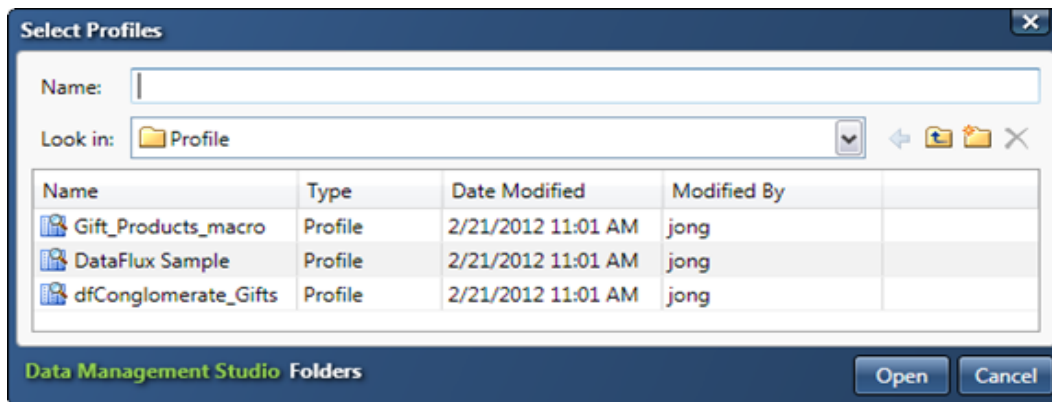
Unlink a dfPower Studio Report from a Data Management Studio Profile

This topic is appropriate when you have already converted dfPower Studio Profile jobs to 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 dfPower Studio report that is incorrectly associated with a Data Management Studio profile.

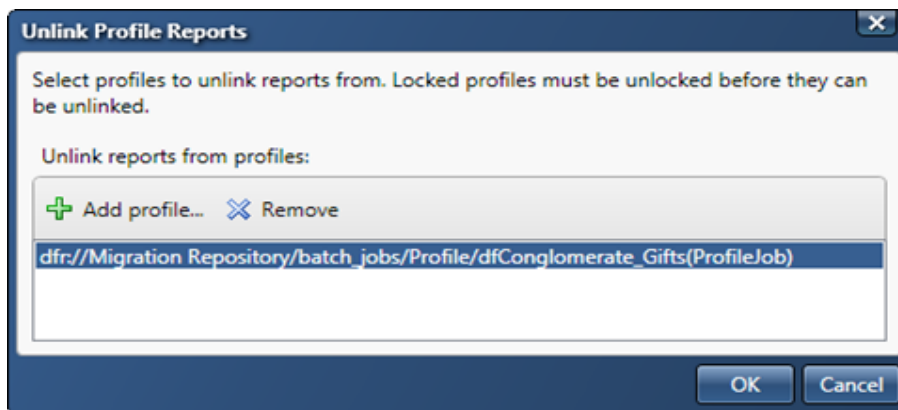
1. Select **Tools > Migrate Profile Jobs > Unlink Link Reports** from the main menu. The Unlink Profile Reports dialog appears.



2. Click **Add Profile**. The Select Profile dialog opens.



3. Select one or more profiles and click **Open**. The selected profiles will be listed in the Unlink Profile Reports dialog.



4. Select one or more profiles from which you will remove the linked report and click **OK**.
5. The reports are unlinked from the profiles.

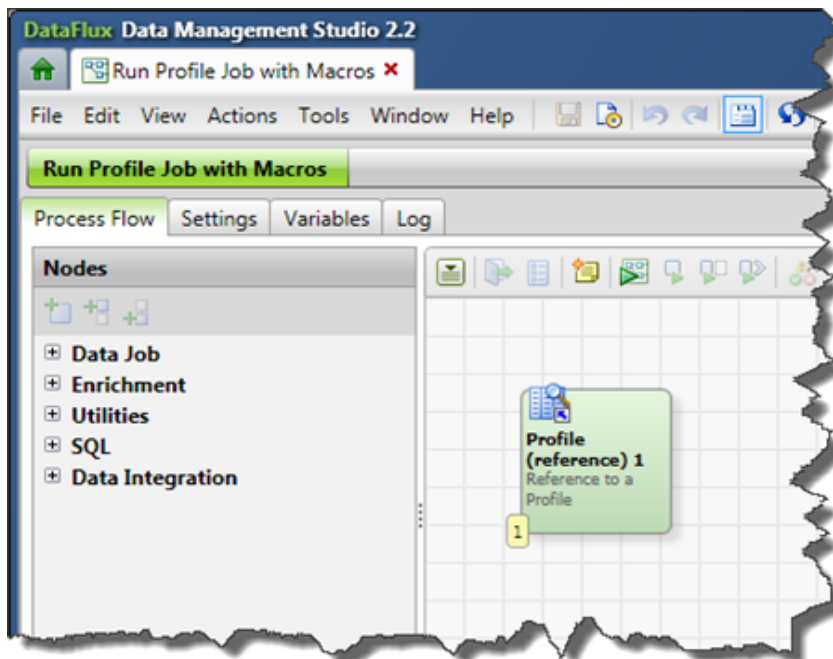
Post-Migration Tasks for Profile Jobs

- [Profile Jobs That Contain Macro Variables](#)
- [Other Changes](#)

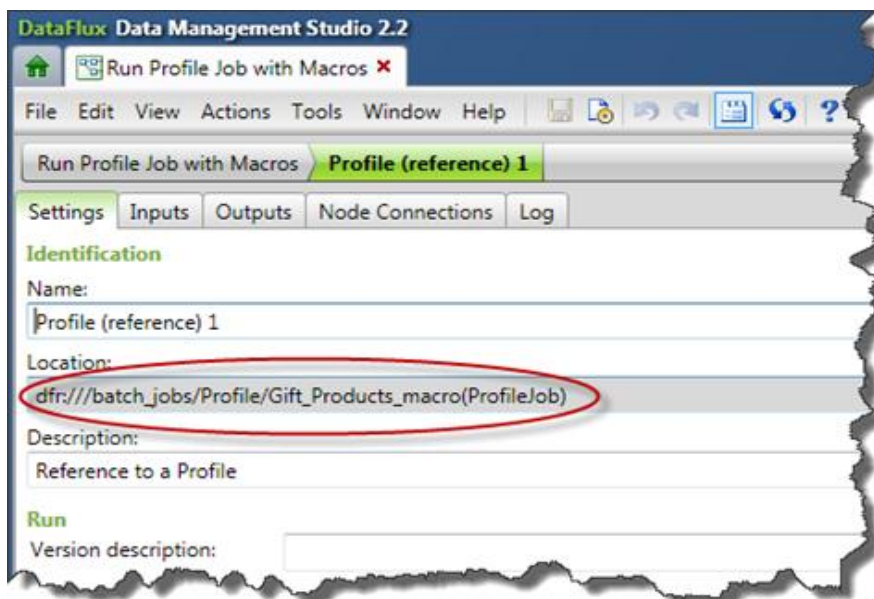
Profile Jobs That Contain Macro Variables

If dfPower Studio Profile jobs were using macros to be passed in at time of execution, when these jobs are upgraded, several steps will be necessary in order to get these Profile jobs working in the same manner. The assumption made is that the Profile job has been upgraded and exists in the DataFlux Data Management Platform v. 2.2 repository.

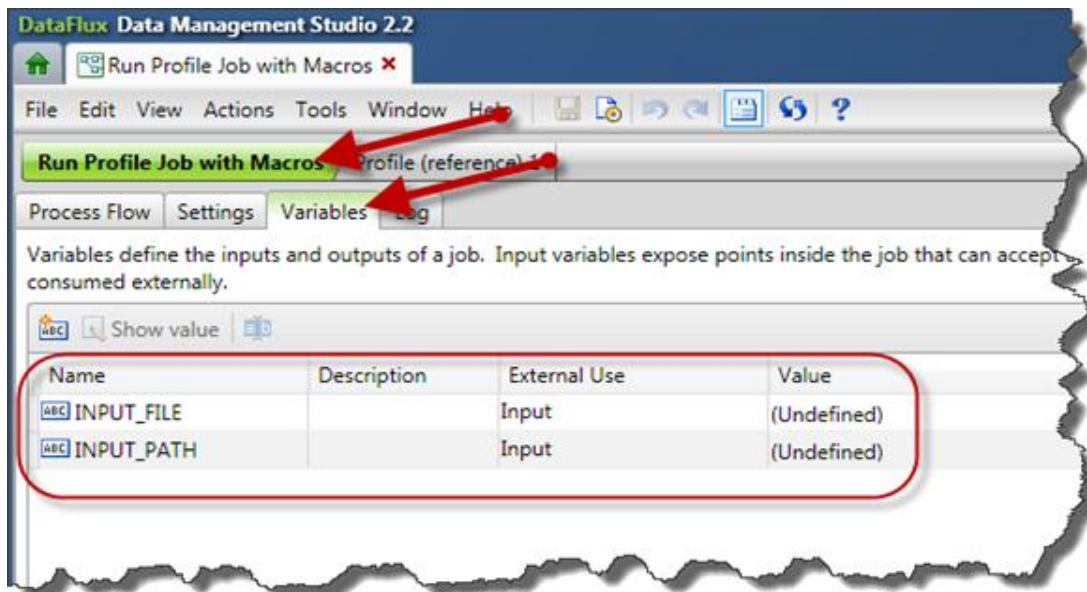
In Data Management Studio create a Process job and add a Profile Reference node.



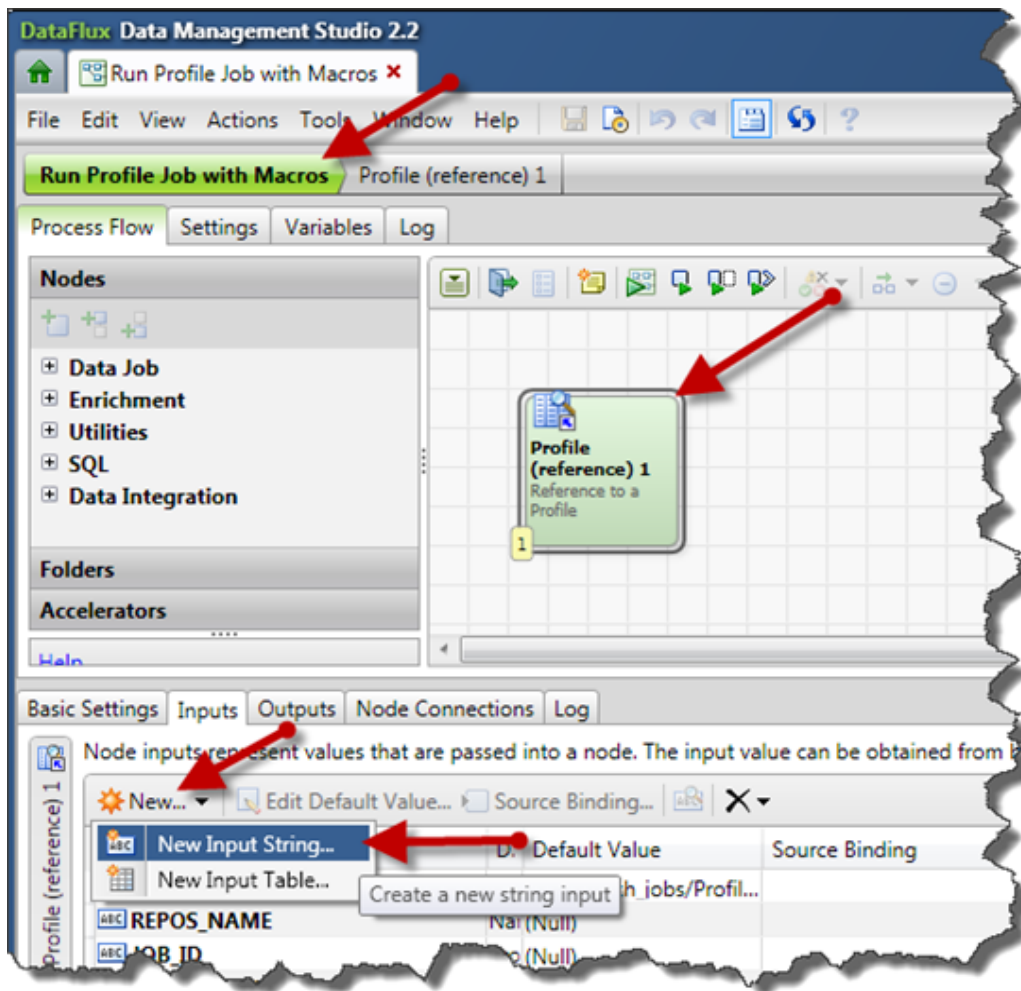
Configure the node to point to the Profile job. The job path cannot be typed in. Use the user interface to navigate to the location. The result should look similar to this:



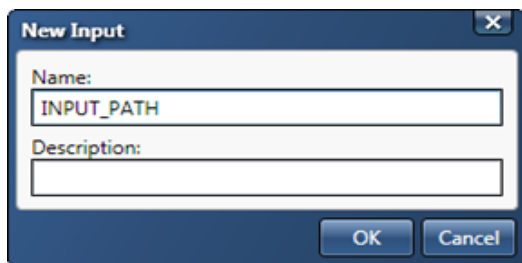
The Profile job uses two macros, INPUT_PATH and INPUT_FILE. We need to set two variables on the Process job to accept those values. We will add two Input variables called INPUT_PATH and INPUT_FILE.



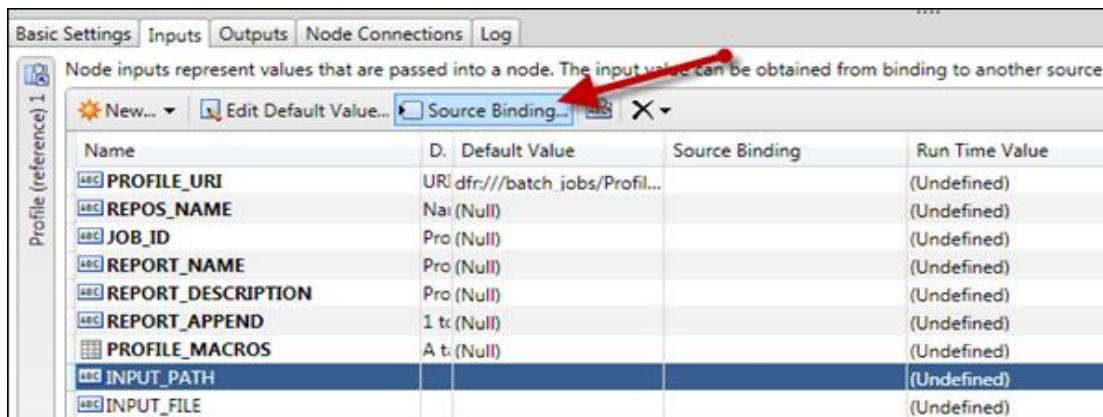
Next step, add two input variables to the Profile Job Reference node, click on the node and select the **Inputs** tab. Then add the two inputs and bind them to the input variables of the job.



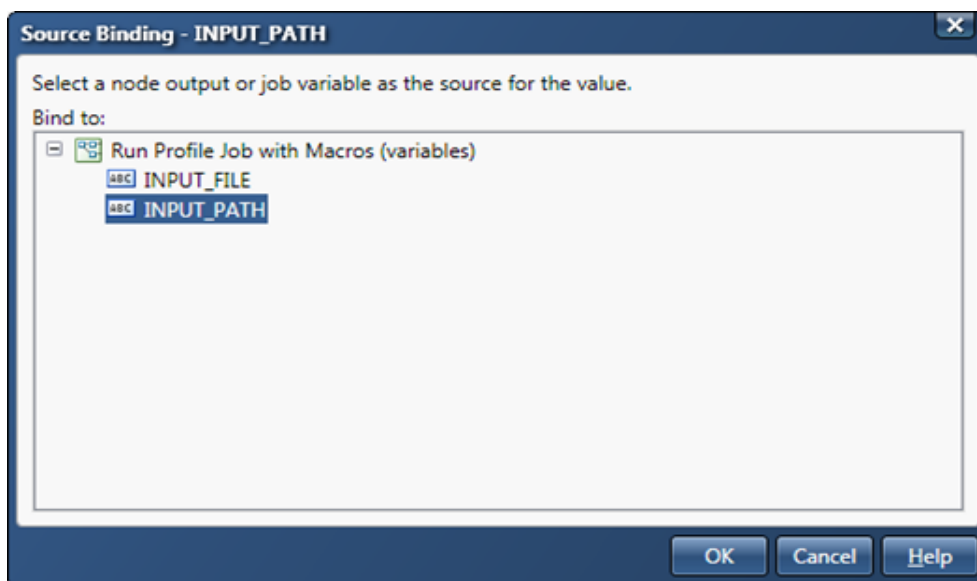
Enter in the name of the input.



Click **OK**. Now bind the value of the job variable to the input of the Process node. Highlight the Input and click **Source Binding**.



This example is working with INPUT_PATH, select the job variable INPUT_PATH:

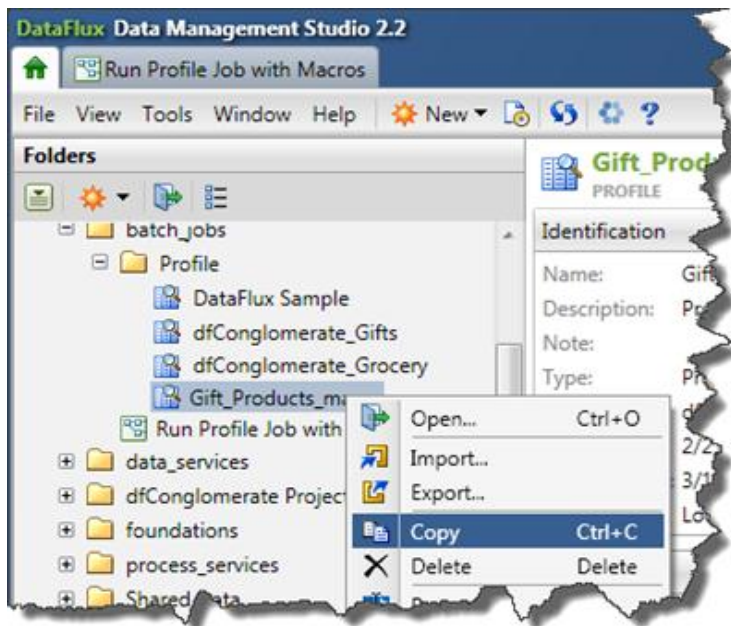


Click **OK**.

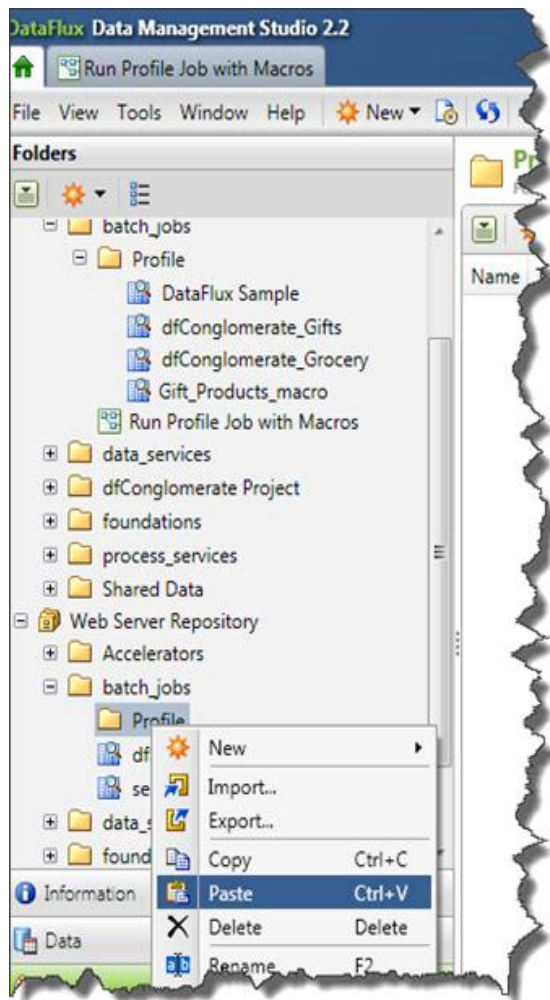
PROFILE_MACROS	A t: (Null)		(Undefined)
INPUT_PATH		INPUT_PATH	(Undefined)
INPUT_FILE			(Undefined)

Repeat the steps for INPUT_FILE.

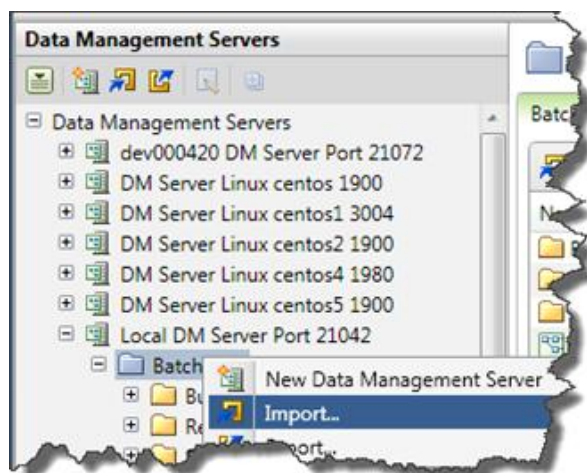
To test, copy the Profile job and the Process job to the server. To copy the Profile job over, the Server's repository must be registered in Data Management Studio, select the Profile job and copy:



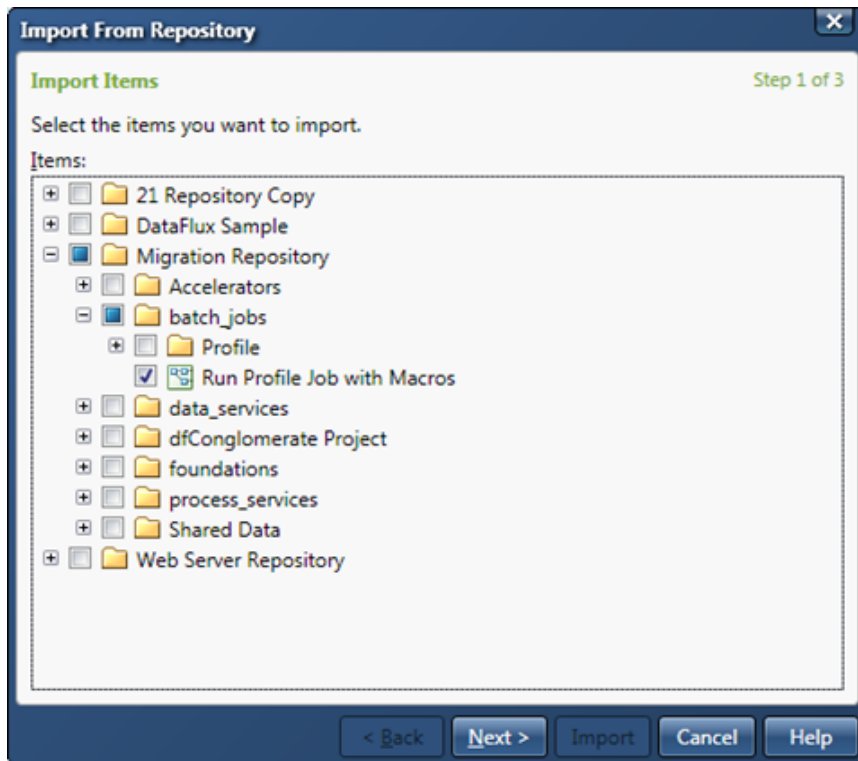
Then paste the job into the batch_jobs location on the server. Make sure that the hierarchy of where the job is being copied to is the same as where it was copied from. In this case, there is one other folder under the Data Management Studio repository batch_jobs called **Profile**. This folder must exist under the server's repository batch_jobs location as well.



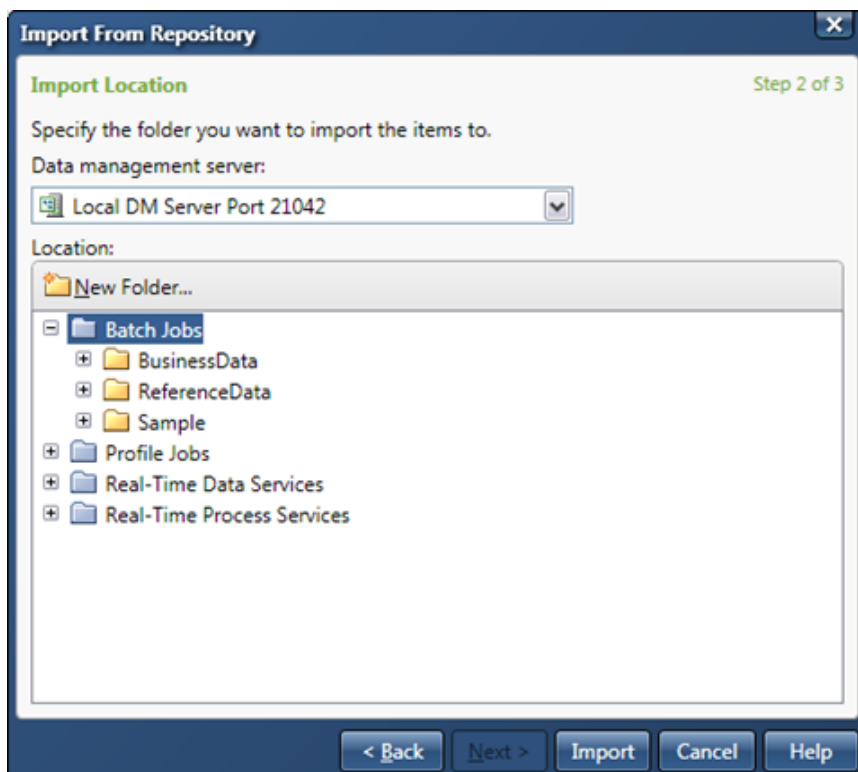
Next, move the Process job over, from the Data Management riser bar, select the server to Import the job to.



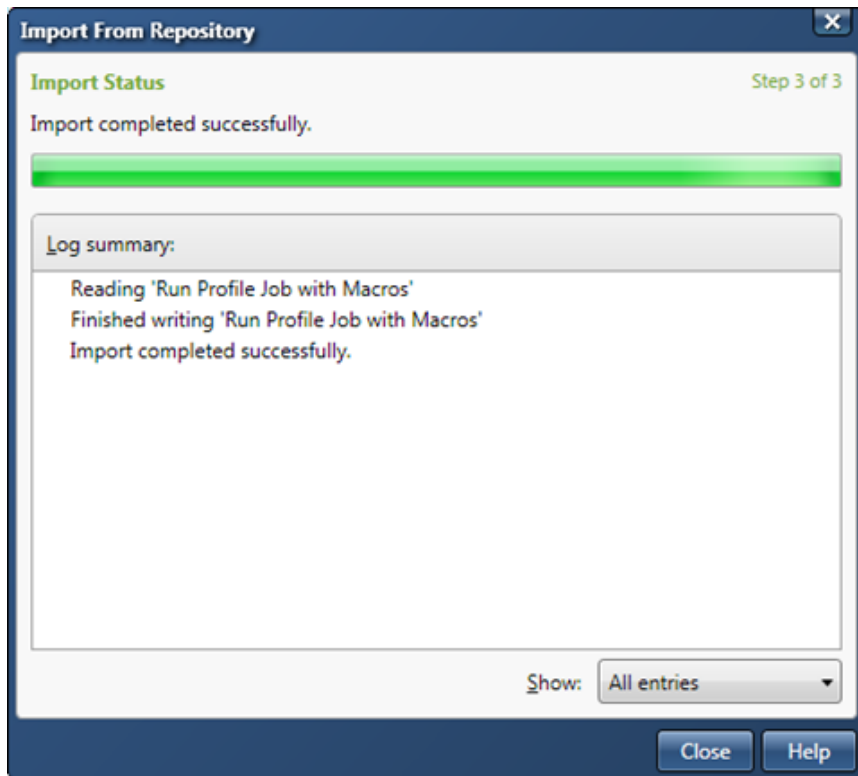
Select the job and click **Next**.



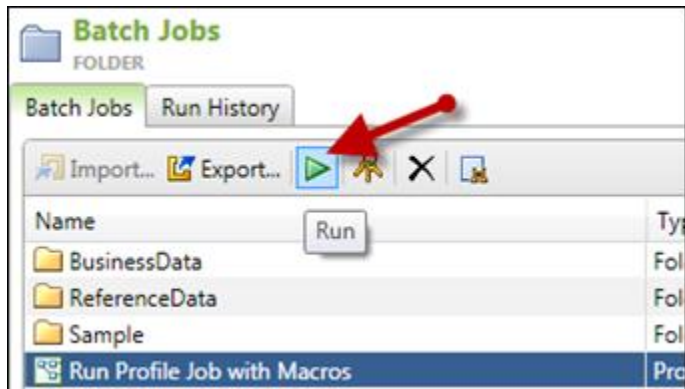
Put it where it needs to be placed and select **Import**.



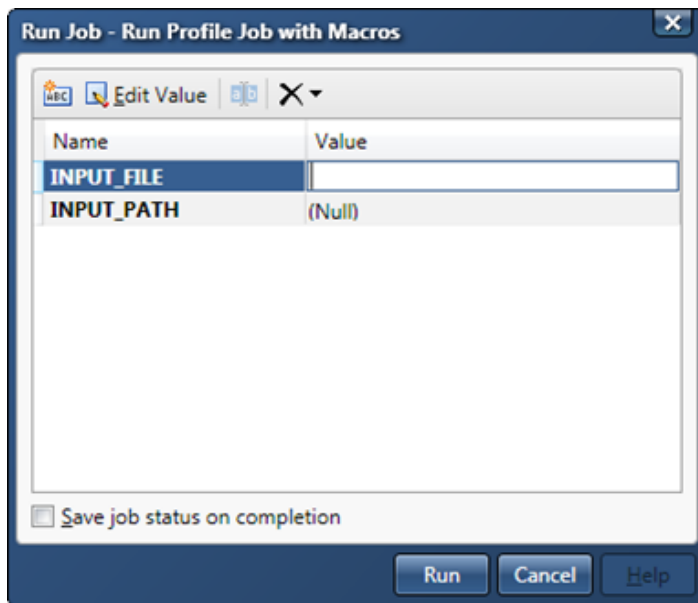
If this is successful, select **Close**.



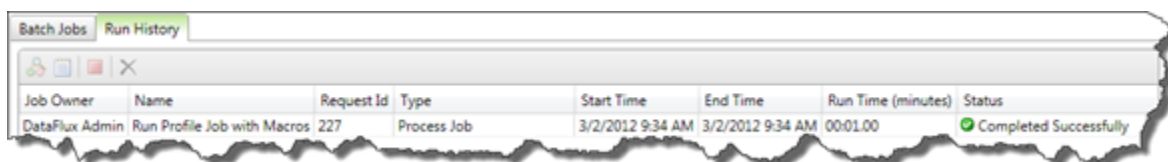
Next, run the job and make sure everything works as expected.



A dialog will appear. Provide the values and click **Run**.



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



If the Profile job is open Data Management Studio, the report will be from the server job run.

Other Changes

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

The way that Redundant Data Analysis is calculated has changed. In 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 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 Data Management Studio to recreate the report. For more information, see the redundant analysis topic in the **Profiles** section of the *DataFlux Data Management Studio Online Help*, v. 2.1.1.

Explorer Jobs

You cannot convert Explorations that were created in dfPower Studio. You must recreate the Explorer jobs in Data Management Studio. Refer to the **Data Explorations** section in the *DataFlux Data Management Studio User's Guide* for v. 2.1.1. Currently, the migration software moves dfPower Studio Data Explorations into the Folders tree in Data Management Studio but you cannot use these items in Data Management Studio, however, so you can select and delete them from the Folders tree.

Accelerators

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

Command Line Execution

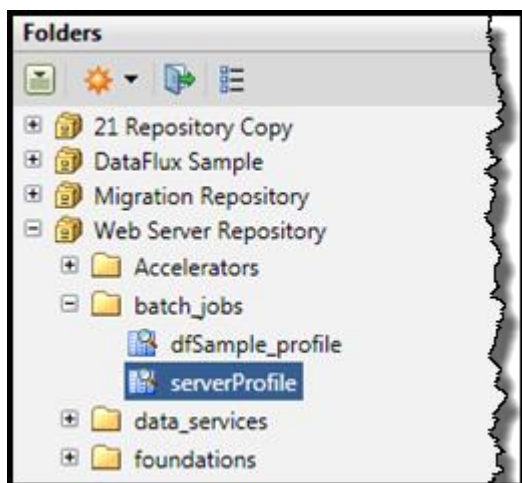
If you prefer running jobs from the command line with dfPower Studio, then this has changed in Data Management Studio. The archbatch.exe and ProfExec.exe are no longer used and jobs now run using dmpexec:

```
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
```

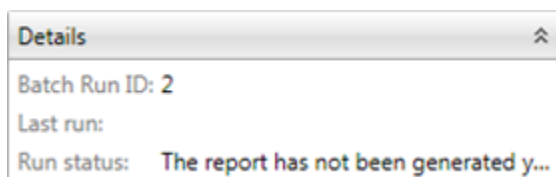
Here is an example of the command to run a Profile job in Data Management Studio:

```
> 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, 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 Data Management Studio, type:

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


where the job can be a Process (with the extension .djf) or Data job (.ddf).

If the job needs to run with a user's credentials, the credentials will be 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
```

and 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 dfPower Studio do not migrate to Data Management Studio. The DataFlux Batch Scheduler application does not exist in Data Management Studio. To schedule jobs in Data Management Studio you will need to write your own scripts.

SAS Data Integration Studio

Customers with SAS v. 9.2 that have EDI/DI bundles must migrate to SAS v. 9.3* first. In that process the system will be upgraded to Data Management Platform v. 2.1. You should understand the following prior to migrating to SAS v. 9.3.

- 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.

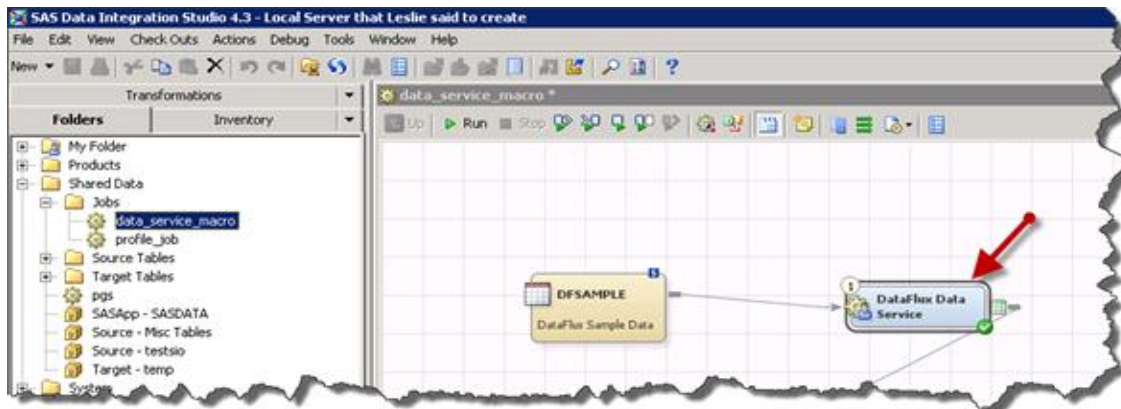
You can take one of the following actions:

- 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.

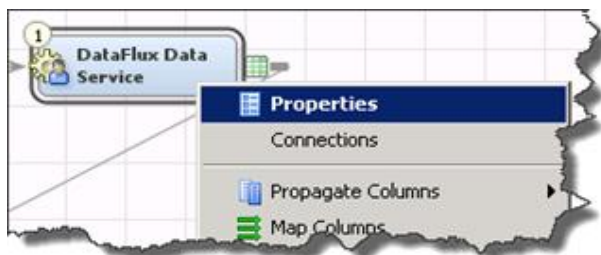
The following additional steps are required in order for the export SAS Package method to work:

1. (Optional) In SAS Data Integration Studio v. 4.3, if you will not be using the migrated jobs that include the Apply Lookup Standardization transformation, delete them. Otherwise, you will have to 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 .dfx jobs will change extensions, to run v. 2.2 based jobs, users will need to edit the SAS Data Integration Studio jobs. To do this, in DI Studio open up a job that uses a DataFlux service or a Profile job.



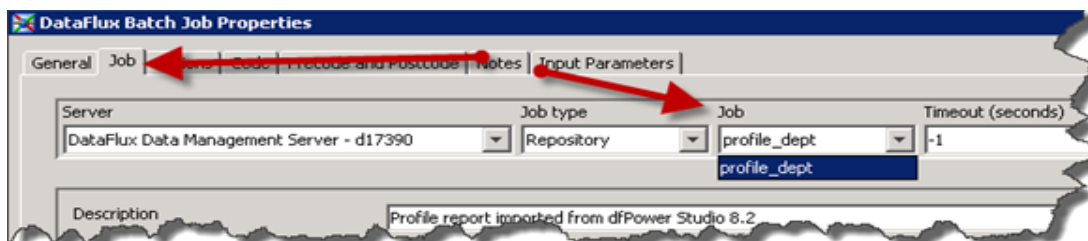
Open the properties of the node.



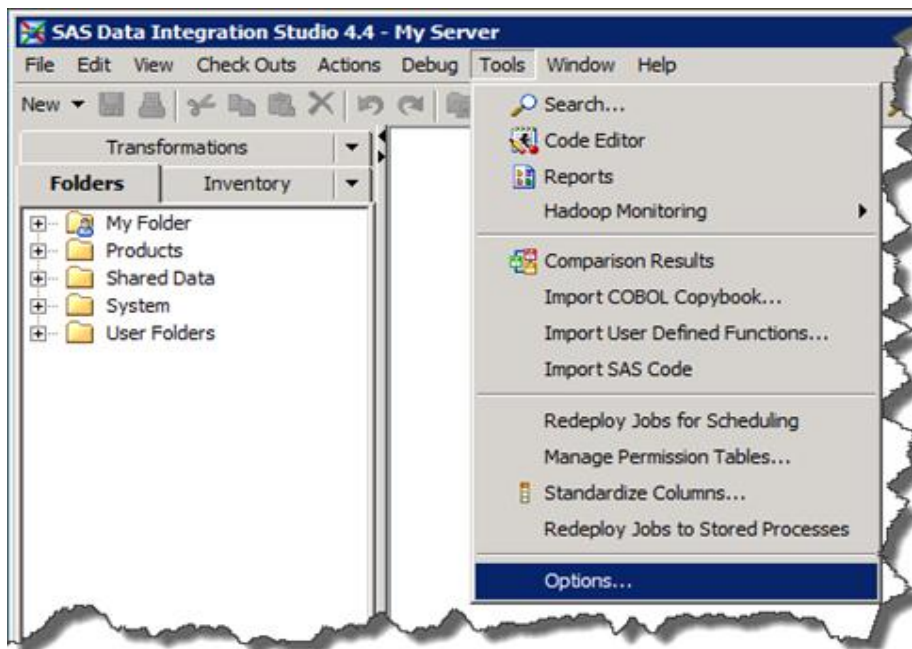
For Data Services click on the **Data Service** tab. In the Servers and services grouping the service will say <pick one>. Click the drop-down list and select the new service to run.



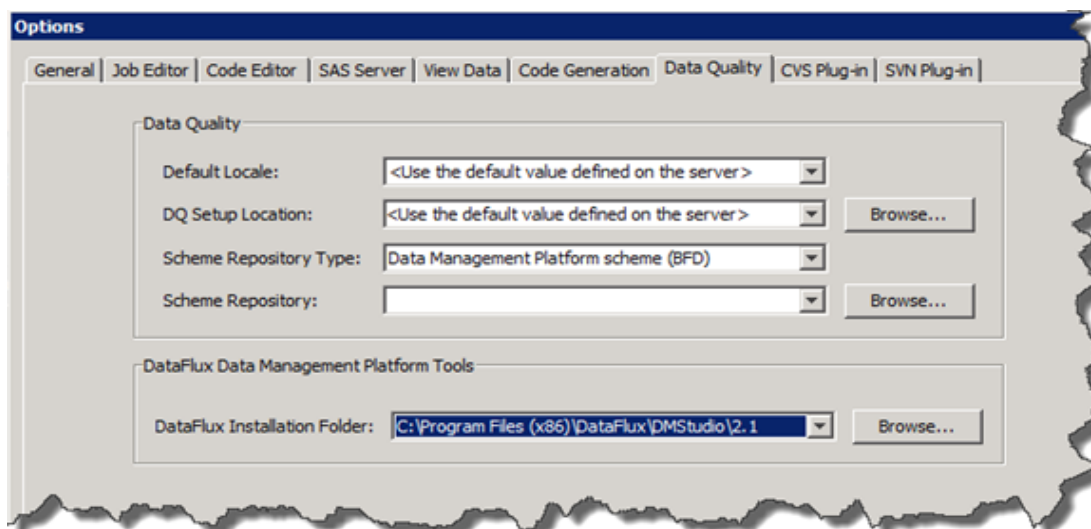
The steps are the same for a Profile job except that the tab is called Job and the drop-down is also called Job.



For a final change, in DI Studio you need to register the path of where Data Management Studio v. 2.2 is located. Open DI Studio and go to **Tools > Options > Data Quality**.



For the DataFlux Installation Folder field, value navigate to the v. 2.2 installation root, for example C:\Program Files\DataFlux\DMStudio\2.2, and save the location.



Click **OK** and then re-start DI Studio.

Other

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

Items found in the Business Rule Manager interface will come over when the repository is migrated. By default all migrated Rules and Tasks will show up in the Data Management Studio Folders riser under the Shared Data folder. You cannot migrate a single rule from a dfPower Repository to a Data Management Platform repository. If a Task, Rule, Custom

Metric, etc. is recreated then you should check the location it was used 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 Data Management Platform.

Migrating From DataFlux Integration Server 8.1/8.2 to Data Management Server 2.2

This section is for those users currently running a DataFlux Data Integration Server v. 8.1 standalone or as part of a SAS v. 9.2 deployment. For SAS 9.2 customers, the Data Management Server v. 2.1 is automatically installed and a server definition is created in OMR. Users then need to take manual steps to migrate jobs and other repository content in order to get it to work with Data Management Server 2.1. If you are installing SAS 9.3 as well as Data Management Platform v. 2.2 at the same time please use this section to move directly from Data Integration Server v. 8.1 to Data Management Server v. 2.2.

- [Configurations](#)
- [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

Below is a list of 8.1 server settings and what they map to in 2.2. One will need to copy the values that are in the 8.1 configuration files to the 2.2 configuration files. In doing so, there are several differences that need to be noted between the configuration files

- Numeric values in 2.2 needs to be written out. Values in 8.1 could be 10m which represents 10 million. In 2.2, this would need to be written as 10000000.
- Data Management Platform does not require configuration values to be surrounded by single quotes

- Double quotes are not special in Data Management Platform configuration files.
- To escape characters (" , =, white space, etc.) in Data Management Platform configuration files surround them with single quotes.

The way to use the following table is to look at the 8.1 dfexec.cfg file, find the configuration from the file in the "8.1 Setting" column, look to the left to see the 2.2 equivalent setting found in the first column and put the value in the file identified in column 2. For example, in the dfexec.cfg file we have the following

```

#      read timeout
# time to wait for server-client read/write operations to complete
# a positive value measures seconds
# a negative value measures microseconds (10 ^ -6)
# if not set it will default to 0.5 seconds (value of -500000)
#
server read timeout = 5

```

To find the equivalent setting in 2.2, look in the "8.1 Setting" column to find "server read timeout".

DMSERVER/SOAP/PROC_SVC/MAX_NUM	(dmserver.cfg)		
DMSERVER/SOAP/RDWR_TIMEOUT	(dmserver.cfg)	server read timeout	(dfexec.cfg)
		Read timeout	(dfexec.cfg)
DMSERVER/SOAP/RETURN_NULLS	(dmserver.cfg)		

From there we can tell that the 2.2 equivalent setting is "DMSERVER/SOAP/RDWR_TIMEOUT" (column 1) and that the value lives in dmserver.cfg (column 2). Open up 2.2's dmserver.cfg file and locate "DMSERVER/SOAP/RDWR_TIMEOUT" by doing a find (CTRL+F) and looking for the 2.2 configuration which in this case is DMSERVER/SOAP/LISTEN_PORT. In this case the setting is not in the default configuration file and we would need to add it.

```

# Value copied from the 8.1 DIS configuration file dfexec.cfg
DMSERVER/SOAP/RDWR_TIMEOUT = 5

```

For things that are in the app.cfg file, please see section 1.4.1.1 Configurations for information on what the new keys are.

Here is the table:

DM Server v. 2.2 Setting	DM Server File	DIS Setting	DIS File/Registry
DATASVC/IGNORE_DECLARED_VARS	service.cfg	--	--
DATASVC/THREAD_STACK_SIZE	service.cfg	--	--
DMSERVER/CHILD/LISTEN_HOST	dmserv er.cfg	server child listen	(dfexec.cfg)
DMSERVER/CHILD/LISTEN_PORT	dmserv er.cfg	server child listen	(dfexec.cfg)
DMSERVER/IPACC/ALL_REQUESTS	dmserv er.cfg	restrict general access	(dfexec.cfg)
DMSERVER/IPACC/POST_DELETE	dmserv er.cfg	restrict post/de lete access	(dfexec.cfg)
DMSERVER/JOBS_MAX_NUM	dmserv er.cfg	dfexec max num	(dfexec.cfg)
DMSERVER/JOBS_NO_STATE	dmserv er.cfg		
DMSERVER/JOBS_ROOT_PATH	dmserv er.cfg	arch svc path arch job path prof job path	(dfexec.cfg)
DMSERVER/LOG_CHUNK_SIZE	dmserv er.cfg	server send log chunk size	(dfexec.cfg)
DMSERVER/NO_WORK_SUBDIRS	dmserv er.cfg		
DMSERVER/SECURE	dmserv er.cfg	enable security	(dfexec.cfg)
DMSERVER/SECURE/DEFAULT_ACE_PUBLIC	dmserv er.cfg		
DMSERVER/SECURE/DEFAULT_ACE_USERS	dmserv er.cfg		
DMSERVER/SECURE/GRP_ADMIN	dmserv er.cfg		

DM Server v. 2.2 Setting	DM Server File	DIS Setting	DIS File/Registry
DMSERVER/SECURE/GRP_ALL OW	dmserv er.cfg		
DMSERVER/SECURE/GRP_DEN Y	dmserv er.cfg		
DMSERVER/SOAP/CONNS_BA CKLOG	dmserv er.cfg	PRIV connect ions backlog	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/ JOB_COUNT_MAX	dmserv er.cfg	--	--
DMSERVER/SOAP/DATA_SVC/ JOB_COUNT_MIN	dmserv er.cfg	--	--
DMSERVER/SOAP/DATA_SVC/ MAX_ERRS	dmserv er.cfg	dfsvc max errs	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/ MAX_NUM	dmserv er.cfg	dfsvc max num	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/ MAX_REQUESTS	dmserv er.cfg	dfsvc max request s	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/ MAX_RUNTIME	dmserv er.cfg	--	--
DMSERVER/SOAP/DATA_SVC/ PRELOAD	dmserv er.cfg	dfsvc preload	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/ PRELOAD_ALL	dmserv er.cfg	dfsvc preload all	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/ QUEUE	dmserv er.cfg	--	--
DMSERVER/SOAP/IGNORE_NS	dmserv er.cfg	--	--
DMSERVER/SOAP/LOG_PACKE TS	dmserv er.cfg	PRIV log packets	(dfexec.cfg)
DMSERVER/SOAP/LISTEN_HO ST	dmserv er.cfg	--	--
DMSERVER/SOAP/LISTEN_PO RT	dmserv er.cfg	server listen port	(dfexec.cfg)
DMSERVER/SOAP/PROC_SVC/ MAX_NUM	dmserv er.cfg	--	--
DMSERVER/SOAP/RDWR_TIME OUT	dmserv er.cfg	server read	(dfexec.cfg) (dfexec.cfg)

DM Server v. 2.2 Setting	DM Server File	DIS Setting	DIS File/Registry
		timeout Read timeout	
DMSERVER/SOAP/RETURN_NULLS	dmserv er.cfg		
DMSERVER/SOAP/SSL	dmserv er.cfg	soap over ssl	(dfexec.cfg)
DMSERVER/SOAP/SSL/CA_CERT_FILE	dmserv er.cfg	soap ssl CA cert file	(dfexec.cfg)
DMSERVER/SOAP/SSL/CA_CERT_PATH	dmserv er.cfg	soap ssl CA cert path	(dfexec.cfg)
DMSERVER/SOAP/SSL/KEY_FILE	dmserv er.cfg	soap ssl key file	(dfexec.cfg)
DMSERVER/SOAP/SSL/KEY_PASSWORD	dmserv er.cfg	soap ssl key passwor d	(dfexec.cfg)
DMSERVER/THREADS/COUNT_MAX	dmserv er.cfg	svr max threads	(dfexec.cfg)
DMSERVER/THREADS/IDLE_MAX	dmserv er.cfg	svr max idle threads	(dfexec.cfg)
DMSERVER/THREADS/IDLE_TIMEOUT	dmserv er.cfg	svr idle thread timeout	(dfexec.cfg)
DMSERVER/WLP/DATA_SVC/MAX_NUM	dmserv er.cfg	dfwsvc max num	(dfexec.cfg)
DMSERVER/WLP/LISTEN_HOST	dmserv er.cfg	server wlp listen	(dfexec.cfg)
DMSERVER/WLP/LISTEN_PORT	dmserv er.cfg	server wlp listen	(dfexec.cfg)
DMSERVER/WORK_ROOT_PATH	dmserv er.cfg	Job io path Workin g path Workin gPath	(dfexec.cfg) (dfexec.cfg) HKEY_LOCAL_MACHINE\SOFTWARE\Win ow6432Node\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.

DM Server v. 2.2 Setting	DM Server File	DIS 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	savedconnectindir	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. One should get the proper version of the Accelerator that works with Data Management Platform 2.2. This means when looking in architect.cfg or dfexec.cfg, no macros with the following prefixes should be moved over:

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

Any remaining macros in architect.cfg or dfexec.cfg that are not in the 8.1 to 2.2 table or are not Accelerator macros, these are more than 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 2.2 specific configuration files.

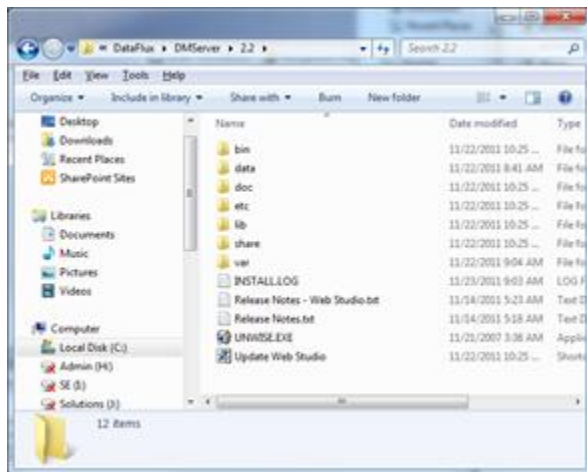


Note: If you see a macro that is not a user defined and believe it to be a DataFlux setting, please contact tech support.

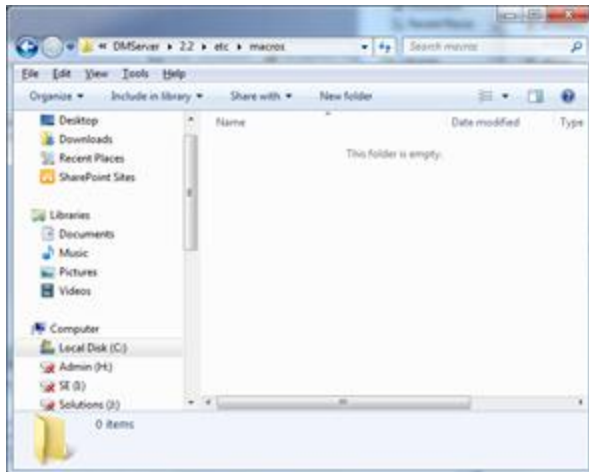
Here is an example. In 8.1 there is a macro called OUTPUT_PATH that we need to move over.

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

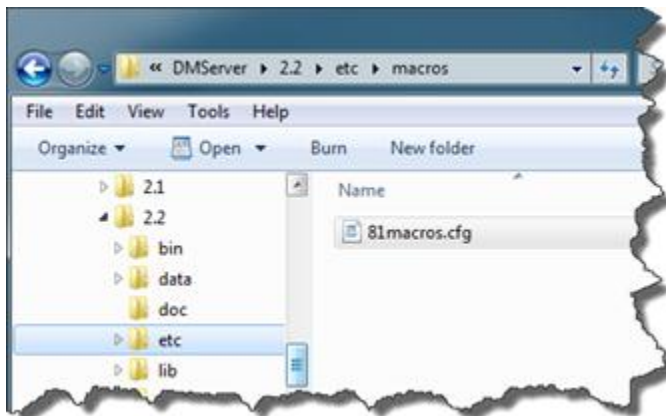
Go to Windows Explorer and navigate to the install root for DM Server, in this case it is the default "C:\Program Files\DataFlux\DMServer\2.2".



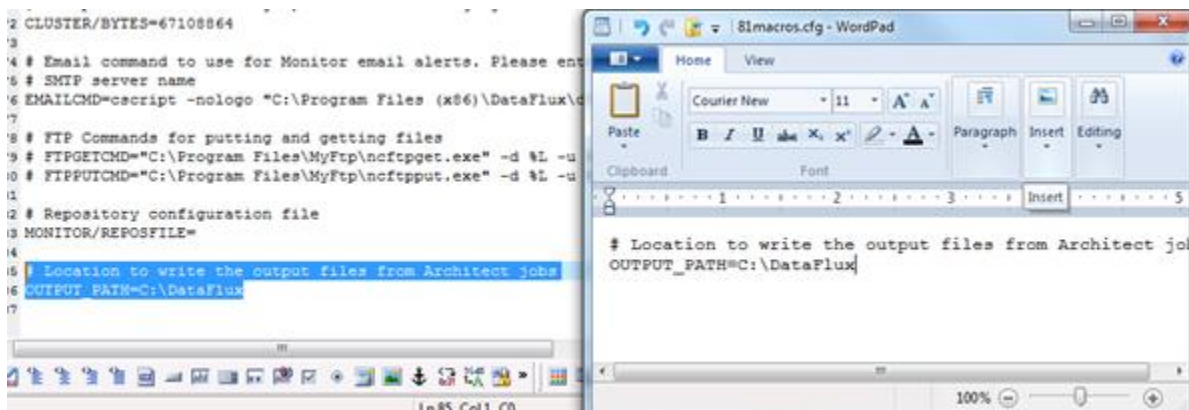
Go into the etc\macros directory.



and create a new text file called 81macros.cfg. More than likely you will 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



These steps should be repeated for each user defined macro. It is recommended that all 8.1 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.

If users want to use single page dfPower real time services as part of their DMP 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, for example 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 section 1.4 for more information on how to configure Data Management Platform so that it will use 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, 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.

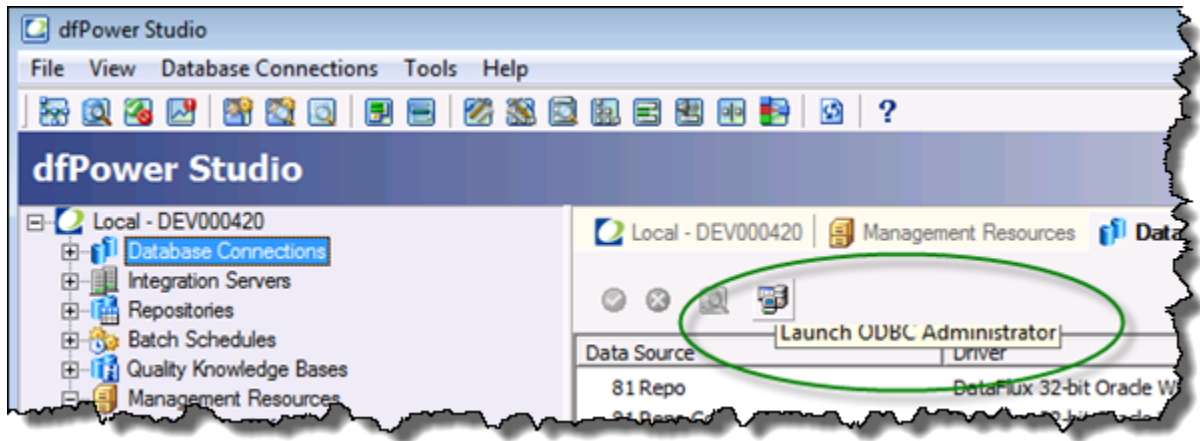
Data Connections - Windows

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

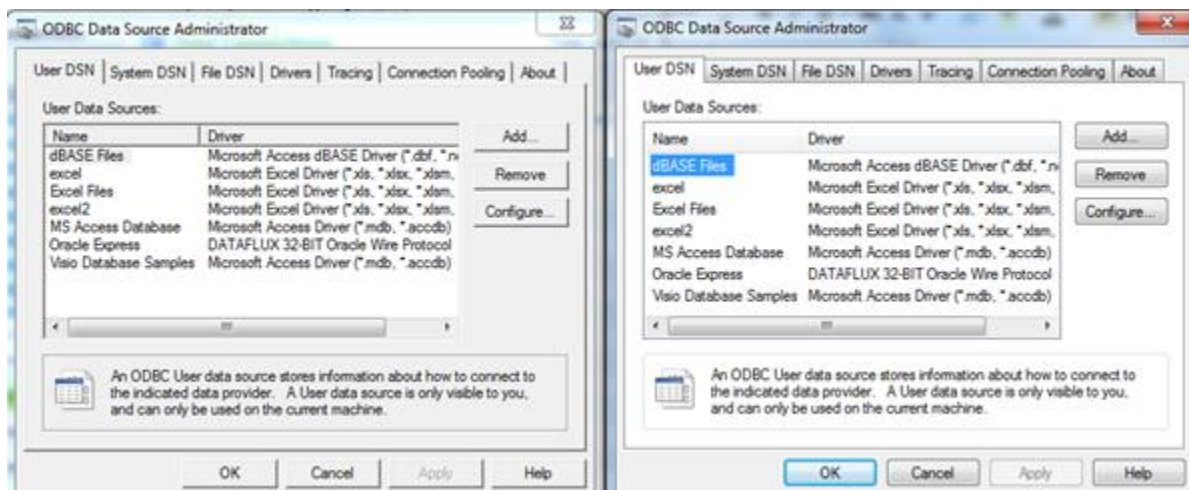
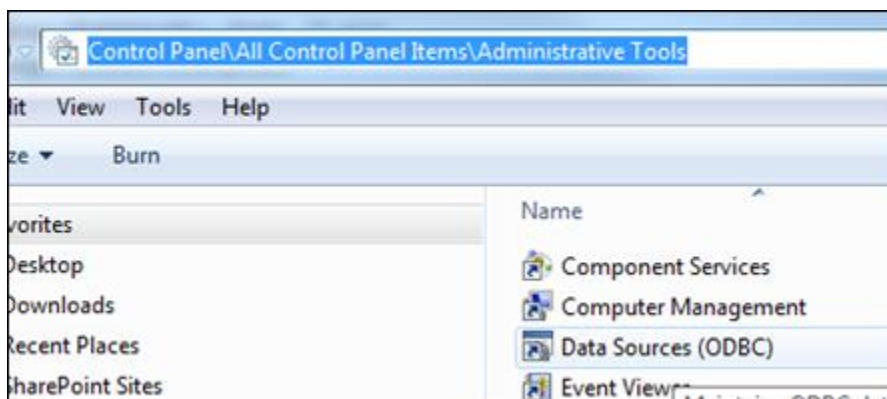
ODBC data connections that are defined on the box will be upgraded automatically to the latest version of the DataFlux ODBC drivers. This means that both dfPower and Data Management Studio will be using the same version of ODBC drivers.

A caveat to the above statements is if a 32 bit version of Integration Server was installed on a 64 bit box. If the 64 bit version of Data Management Server is installed on the same box, then the ODBC DSNs must be recreated through the 64 bit version of the ODBC Data Source. Best way to do this copying is open up the 32 bit ODBC Administrator via dfPower

(assuming that this was installed on the box in order to create the connections originally) or the dfConnection Manager.



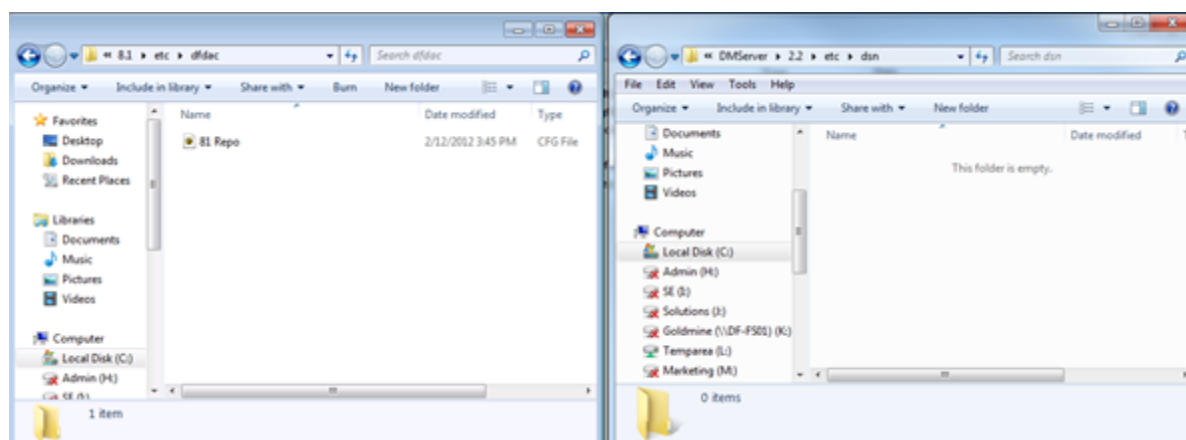
then open the 64 bit ODBC Administrator using the Control Panel



There is no way to distinguish which version is 32 bit or 64 bit, so you will 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.

You will have to 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 [DMSERVER_INSTALL_ROOT]\etc\dsn\.

The only action that a user will have to take is 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 will be in %APPDATA%\dfdac\mydatasources. These saved credential files should be copied to [DMSERVER_INSTALL_ROOT]\etc\dsn\.

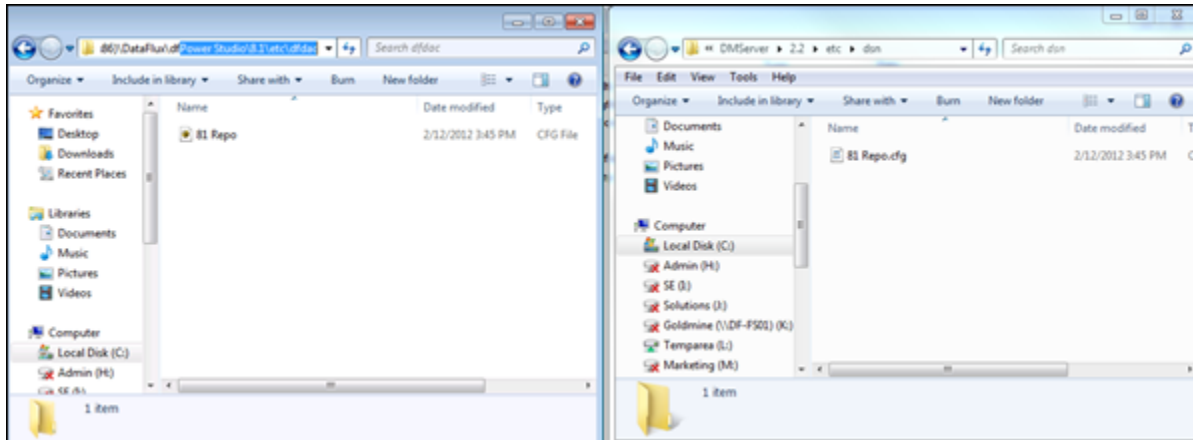


```
Administrator: Command Prompt
c:\Program Files (x86)\DataFlux\DMStudio\2.2>dftool
Please enter an action to take or help for more information
1 COPY
2 MACROFIX
3 REPOSCOPY
4 REPOSCREATE
5 REPOSDROP
6 REPOSUPGRADE
7 REPOSCOPYUPGRADE
8 STRESS
9 HELP

Please pick a number: 1
What would you like to copy?
1 8.1/8.2 saved credentials to 2.2
2 2.1 saved credentials to 2.2
3 2.1 users settings to 2.2
4 CUSTOM

Please pick a number: 4
Please enter the directory to copy from: "\\dev000420.us.dataflux.com\c:\Program Files (x86)\DataFlux\dfPower
Please enter where you want to copy to: "C:\Program Files\DataFlux\DMServer\2.2\etc\dsn"
Files: *.cfg

Log File : c:\Program Files (x86)\DataFlux\DMStudio\2.2\MyLogfile.txt
c:\Program Files (x86)\DataFlux\DMStudio\2.2>_
```

Data Connections - UNIX

If 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 recreated in the 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 recreate the DSNs.

Once the connections are re-created, the next thing will be bringing over any saved credentials. On UNIX servers, if dfdbview was used to save the credentials, these will be found in the user's home directory under the .dfpower directory. If a DM Server is being installed under the same user ID as the Integration Server, DM Server will use 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.

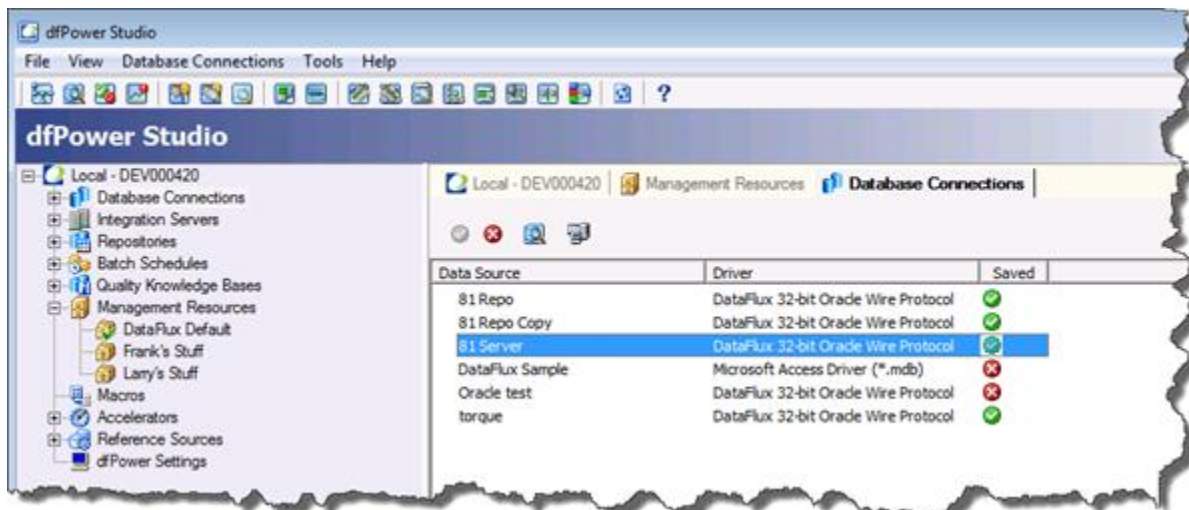
Repositories

With the Integration Server one could connect to multiple dfPower repositories (in DMP called data storages) at a time. This is no longer the case with Data Management Server. It only supports connecting to one data storage portion of a repository at a time. If there is still a need to have separate versions of the dfPower repository then multiple versions of the DM Server will be needed. This type of configuration is supported on UNIX but not on Windows.

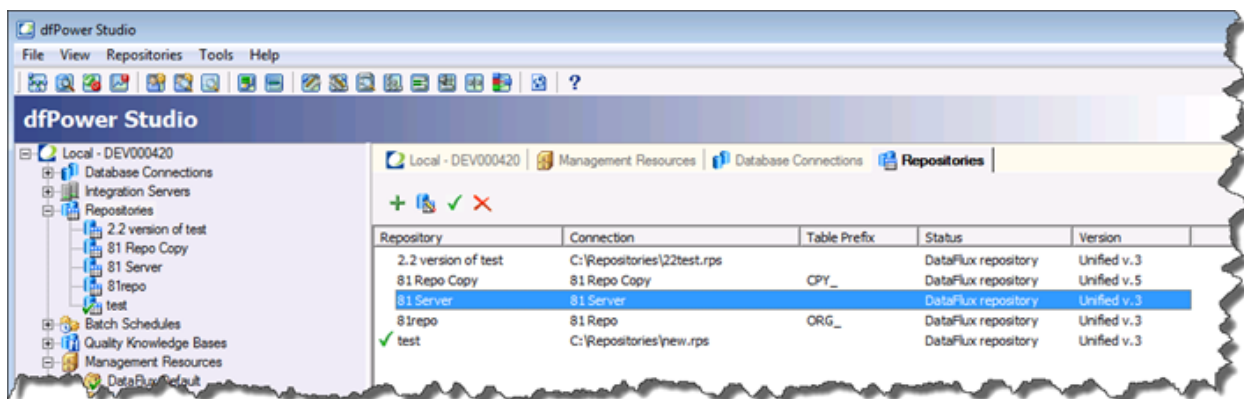
From the "etc/profrepos.cfg" file identify the DSN that will be used to be the data storage part for the DM Server. If dfPower repositories need to be merged this should be completed before upgrading.

Next we will through an example of how to create a copy of a repository that the Integration Server is using and then upgrade it so that it can then be used by the DM Server. The assumption is that all Business Rules and other repository objects have been moved into the one repository we will be upgrading.

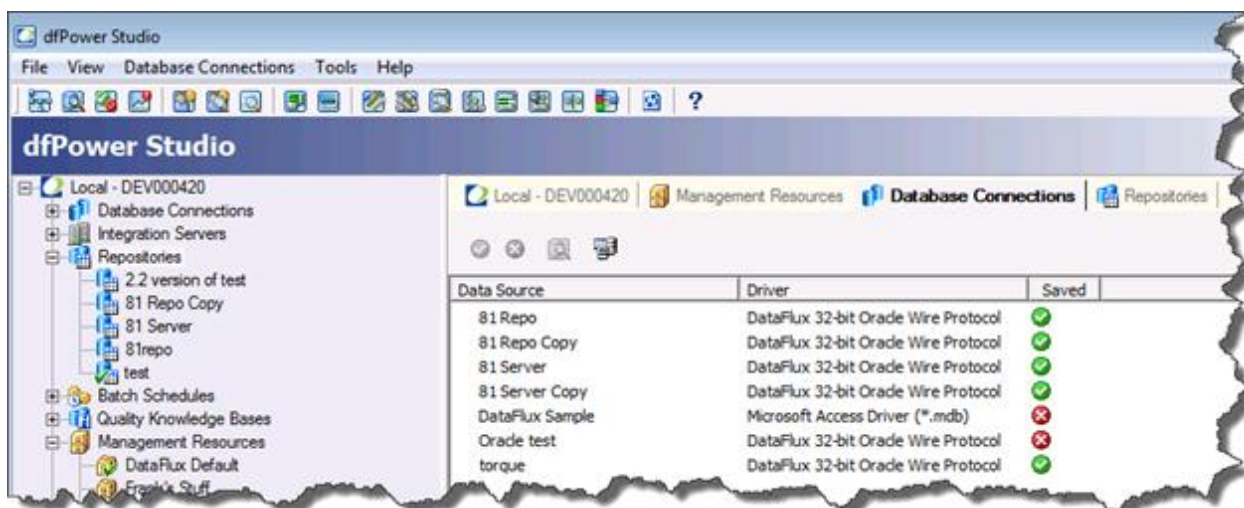
Here is the Database Connections screen



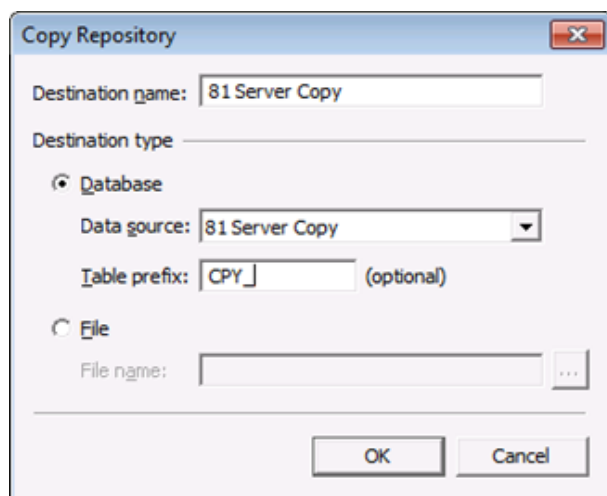
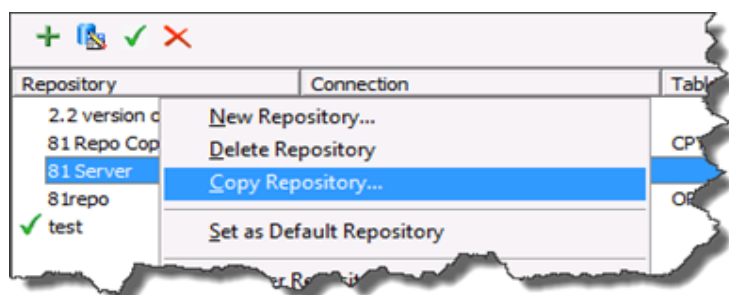
Here is the repository screen showing the registered "81 Server" repository



After we create the second DSN that will hold the copy, here is what we have from the "Database Connections" screen:

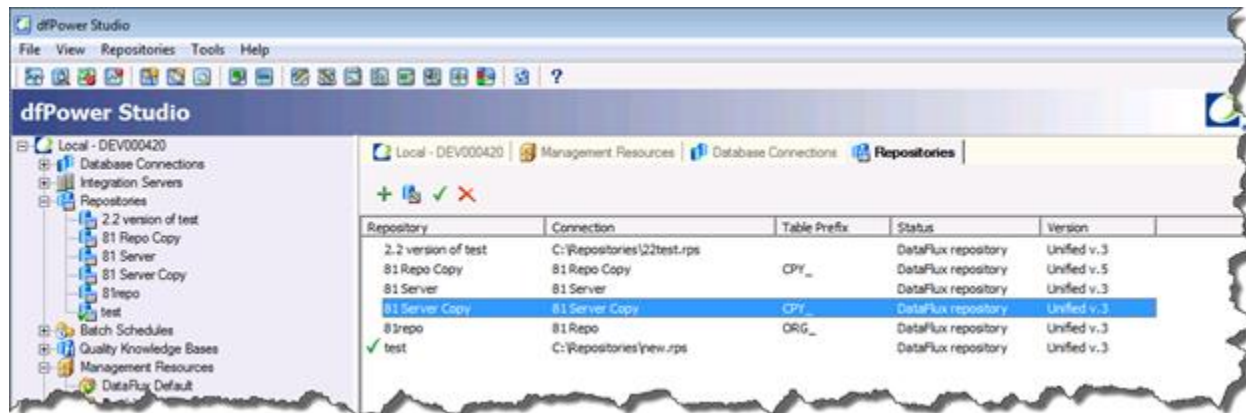


We will copy the "81 Server" repository to the "81 Server Copy" repository.

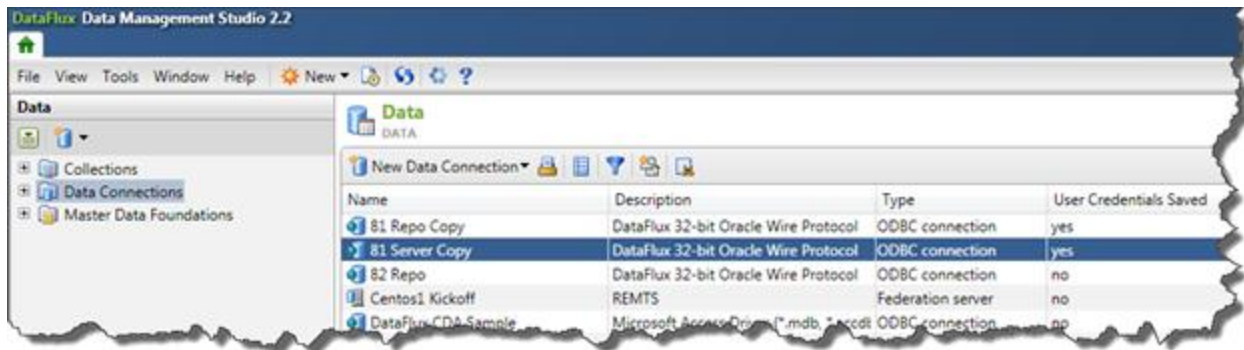


If this were a file-based repository, the same action would be used and the "File" option would be filled in instead of the "Database" option.

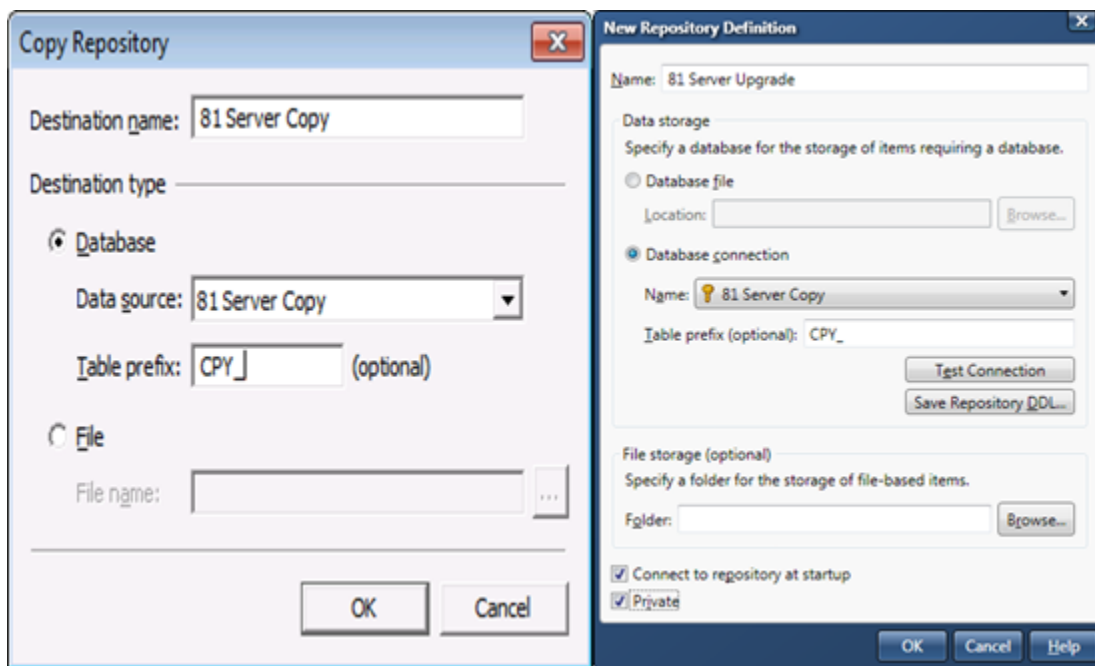
It is highly recommended that the "Table prefix" option be used to identify that this is a copy. Even if the recommendation of putting the copy in a different schema is used, this would be another way to quickly identify that this is not an original repository.



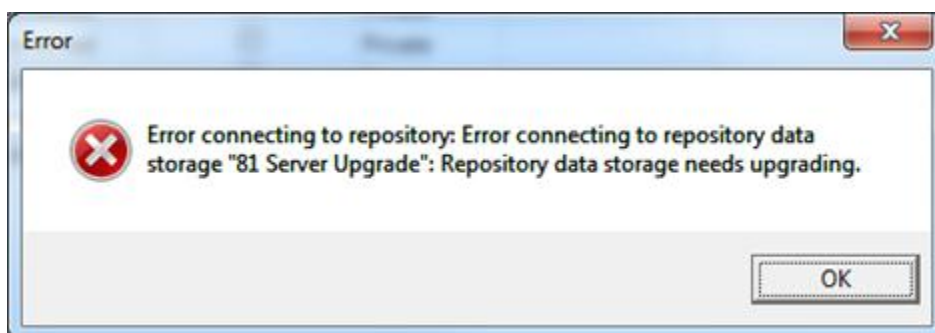
Now that there is a copy, we need to upgrade it in DM Studio. If the DSN does not exist on the machine that has DM Studio, go ahead and create it.



Create the repository definition in DM Studio. Notice that we are using the same values that we used when we created the copy in dfPower:



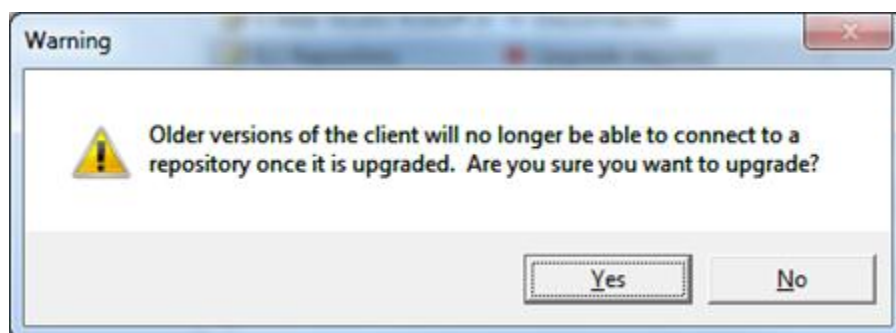
Also notice that the "Folder" configuration is left blank in the DM Studio configuration. This is done on purpose as will be shown in a little bit. When we save the configuration DM Studio will let us know that the repository needs to be upgraded. This is ok and a good sign that the system has recognized that we have an older version and it needs to be updated so that DM Studio can use it. Select ok...



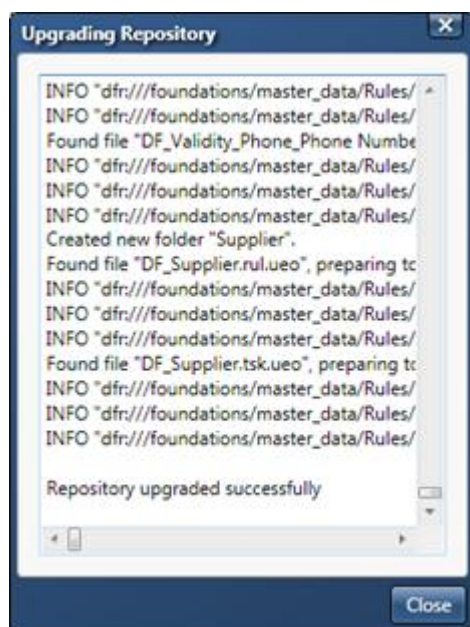
...and we should now see something that indicates that the repository needs to be upgraded. Right click on the repository and choose Upgrade.



When prompted to confirm the upgrade, select yes.



The upgrade process will then be kicked off. At the end of it, there should be a confirmation that the upgrade completed successfully



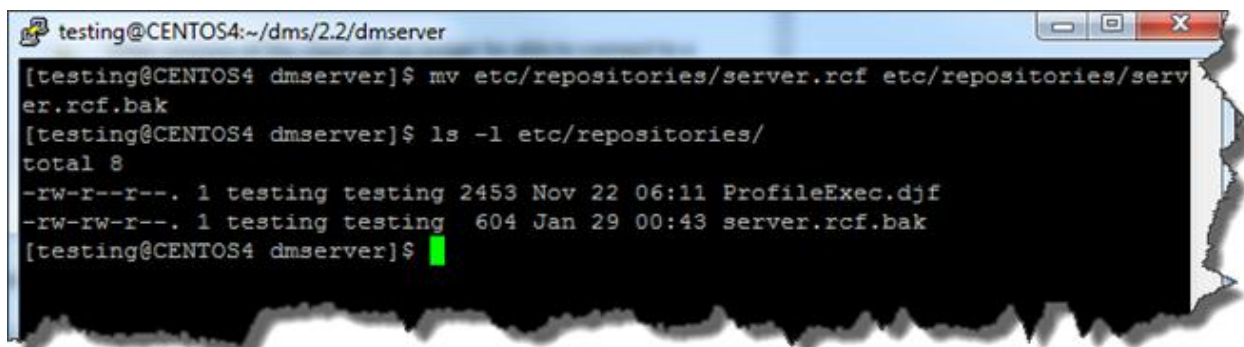
When the upgrade is done, connect to the repository and there will be an indication in the repository screen that it connected



Now that we have created the repository, there are two things we need to do

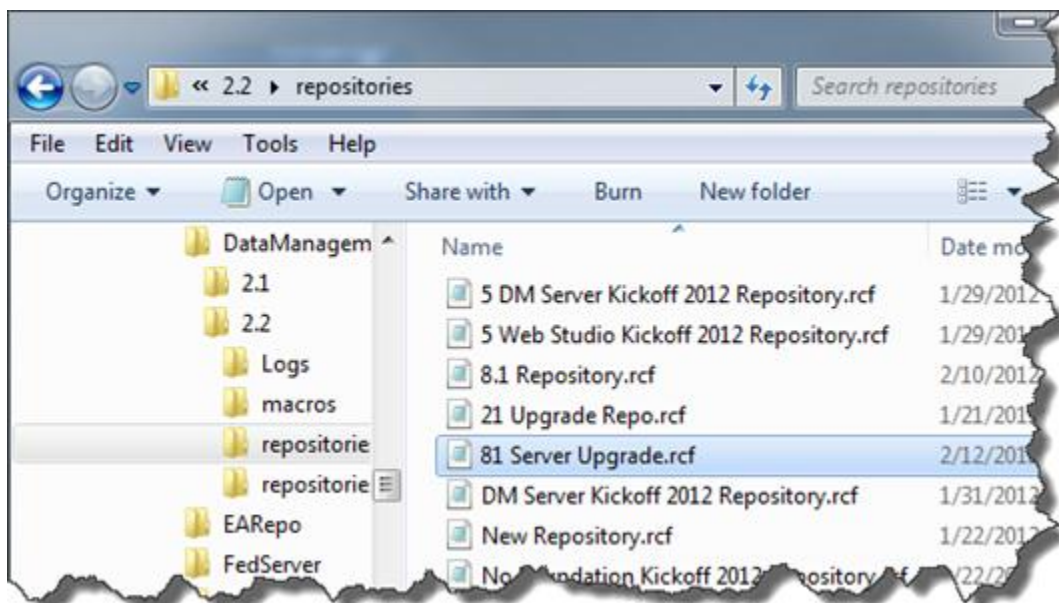
1. Copy the repository configuration file to the server
2. Copy or save credential files to the server.

Regardless if 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. Since DM Server comes with a default RCF file, we will rename this first.

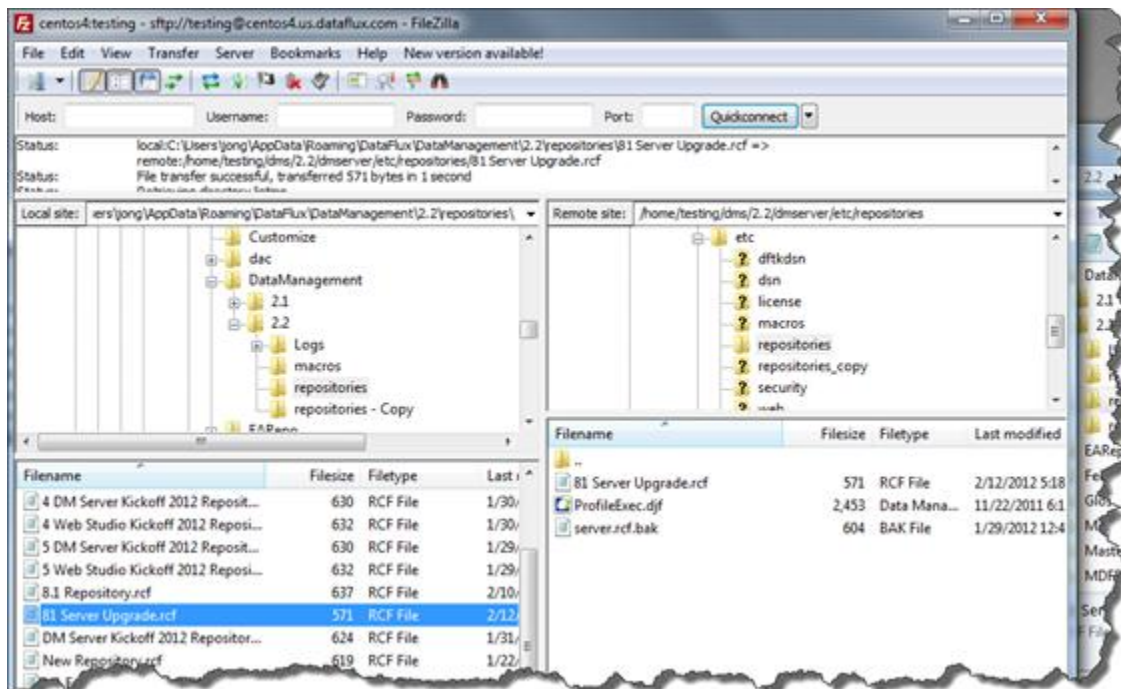


```
testing@CENTOS4:~/dms/2.2/dmserver
[testing@CENTOS4 dmserver]$ mv etc/repositories/server.rcf etc/repositories/server.rcf.bak
[testing@CENTOS4 dmserver]$ ls -l etc/repositories/
total 8
-rw-r--r--. 1 testing testing 2453 Nov 22 06:11 ProfileExec.djf
-rw-rw-r--. 1 testing testing 604 Jan 29 00:43 server.rcf.bak
[testing@CENTOS4 dmserver]$
```

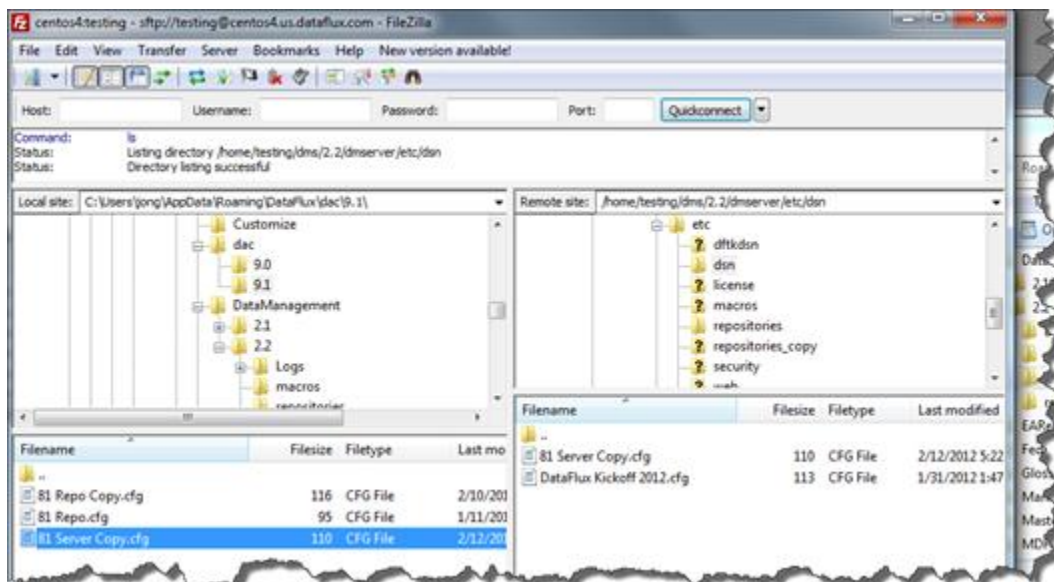
Now find the Studio RCF file and copy this over to the Server. If you followed the screenshots, the repository was configured as being private. This means that the RCF file can be found by going to %APPDATA%\DataFlux\DataManagement\2.2\repositories



If it is not in this location, then look in [DM_Studio_root]\etc\repositories. Copy the "81 Server Upgrade.rcf" file to the server. In the following FileZilla is used to SFTP the file over to the Server.



Since we have the saved credentials on our DM Studio box, we will go ahead and copy these over to the Server using FileZilla as well. The saved credentials are in the %APPDATA%\DataFlux\dac\9.1 directory and we will copy them to the [DM_Server_root]/etc/dsn directory.



The last thing is to create the DSN on the server. The DSN name that we need to create is defined in the RCF file. From the Server host we can view the RCF file to make sure we create the correct DSN name.

```
testing@CENTOS4:~/dms/2.2/dmserver
[testing@CENTOS4 dmserver]$ cat etc/repositories/81\ Server\ Upgrade.rcf
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<VaultRepositoryInfo IsActive="true" Name="81 Server Upgrade" RepositoryType="Vault">

  <VaultPath></VaultPath>

  <UnifiedRepositoryConnect>DSN=81 Server Copy; FXTYPE=ODBC</UnifiedRepositoryConnect>

  <UnifiedRepositoryPrefix>CPY_</UnifiedRepositoryPrefix>

  <VaultLogFile></VaultLogFile>

  <UnifiedRepositoryName>81 Server Upgrade</UnifiedRepositoryName>

  <UnifiedRepositoryType>ODBC</UnifiedRepositoryType>

  <UnifiedRepositoryVersion></UnifiedRepositoryVersion>

</VaultRepositoryInfo>
[testing@CENTOS4 dmserver]$
```

Once we have that, we can create the DSN (assuming that we know what data source this should be connecting to)

```
testing@CENTOS4:~/dms/2.2/dmserver
[testing@CENTOS4 dmserver]$ ./bin/dfdbconf
DataFlux ODBC Configuration Tool

ODBC INI: /home/testing/dms/2.2/dmserver/etc/odbc.ini
template: /home/testing/dms/2.2/dmserver/etc/odbc.ini.template

Please select an action to perform.

A. Add a data source.
D. Delete a data source.
X. Exit.

Action:
```



```
Please select a name for the new data source.
```

```
Name: 81 Server Copy
```

```
Added new data source (81 Server Copy).
```

```
[testing@CENTOS4 dmserver]$
```

The file storage location of the Data Management Server will always be [DMSERVER_INSTALL_ROOT]\var\ . Looking at the contents of the 8.1 Server

```
-bash-3.00$ ls -l var/  
total 12  
drwxr-xr-x  2 jong users 4096 Nov 23 12:50 dis_arch_job  
drwxr-xr-x  2 jong users 256 Oct 19 17:21 dis_arch_svc  
drwxr-xr-x  2 jong users 4096 Nov 23 14:52 dis_prof_job  
drwxr-xr-x  2 jong users 256 Oct 19 17:21 dis_prof_svc  
-rw-r--r--  1 jong users   8 Nov 23 14:51 SHM_4ECD75478605A77C_SEG  
drwxr-xr-x  2 jong users 256 Nov 25 02:03 stat  
-bash-3.00$
```

there are only two directories that need to be moved over. The "[DIS_root]/var/dis_arch_job" contents should be copied into the "[DM_Server_root]/var/batch_jobs" directory. The "[DIS_root]/var/dis_arch_svc" contents should be copied into the "[DM_Server_root]/var/data_services" directory.

 **CAUTION!** Do **NOT** copy anything from the "dis_prof_job" directory.

Profile jobs will need to be migrated through DM Studio.

If the repository that the server will use 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. Make 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 will continue to run on a Data Management Server with no conversion needed, but it is highly recommended that jobs be converted using Data Management Studio, tested and then uploaded to the Server. This will allow for taking advantage of new feature/functionality that Data Management Platform 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 DMP deployment, then the following needs to be added 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 can run with no changes in Data Management Server.

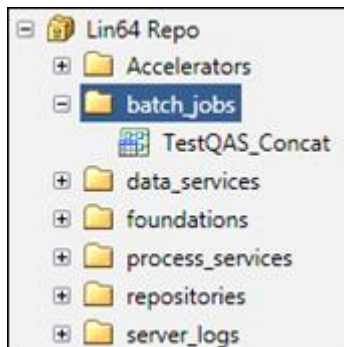
It is highly recommended that jobs be converted using Data Management Studio, tested and then uploaded to the Server. This will allow for taking advantage of new feature/functionality that Data Management Platform offers.

Profile Jobs

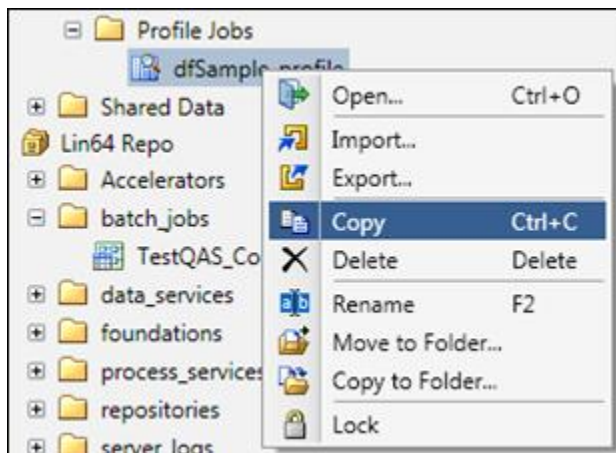
Profile jobs need to be imported through Data Management Studio before they can be run on Data Management Server. This is all done through Data Management Studio and more information about the process can be seen in section 1.3.3 Profile Jobs and in section 1.4.1.6 Profile Jobs.

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 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.

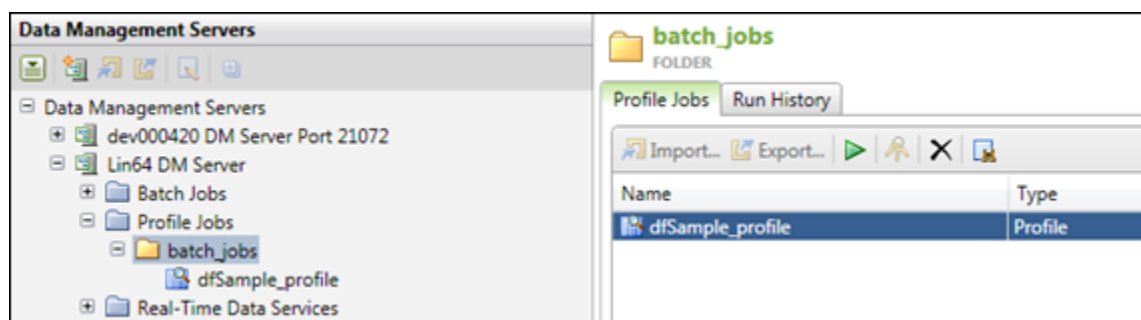
In Data Management Studio, the Lin64 Repo is a Data Management Server repository on a Linux 64 box. Notice it does not have the Profile job, dfSample_profile on it.



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 will add the Profile job and make it available to run via the Data Management Server Manager interface in 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 Data Management Platform.

Security

Before setting up security, refer to the *DataFlux Secure Guide*.

If security was being used before with Integration Server, all security settings you used in DataFlux Integration Server will have to be re-created from scratch in Data Management Server. The model used in Data Management Platform has changed and it will require you to reset all user permissions as well as recreate any Access Control List settings you may have had for individual jobs.

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

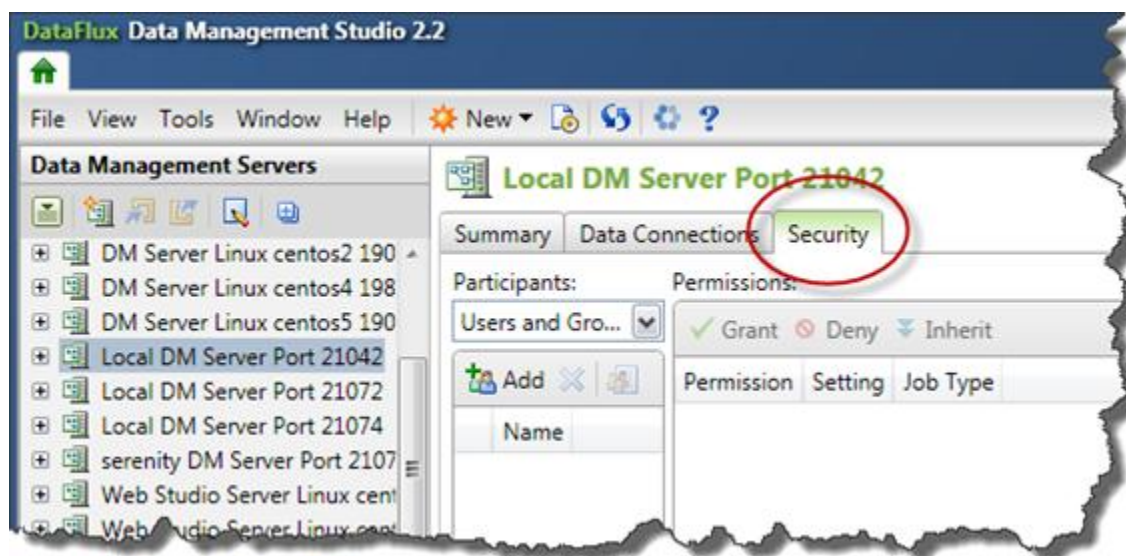
Once the Authentication Server is installed, configured and users are added, Data Management Server will need to be configured as well. The following settings should exist in the `dmserver.cfg` file:

```
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>
```

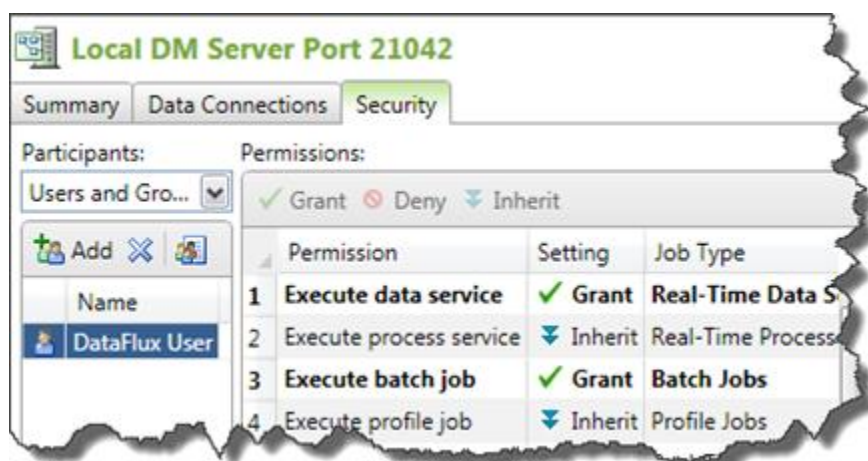
For the `GRP_ADMIN` setting, this can be any group that is in the Authentication Server. It is recommended that a group called `DMS_ADMINS` be used.

Once these values are set, restart the Data Management Server and connect to it via the Data Management Server Manager interface. You will be asked to login and any user in the group defined by `DMSERVER/SECURE/GRP_ADMIN` can be used to login. 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.

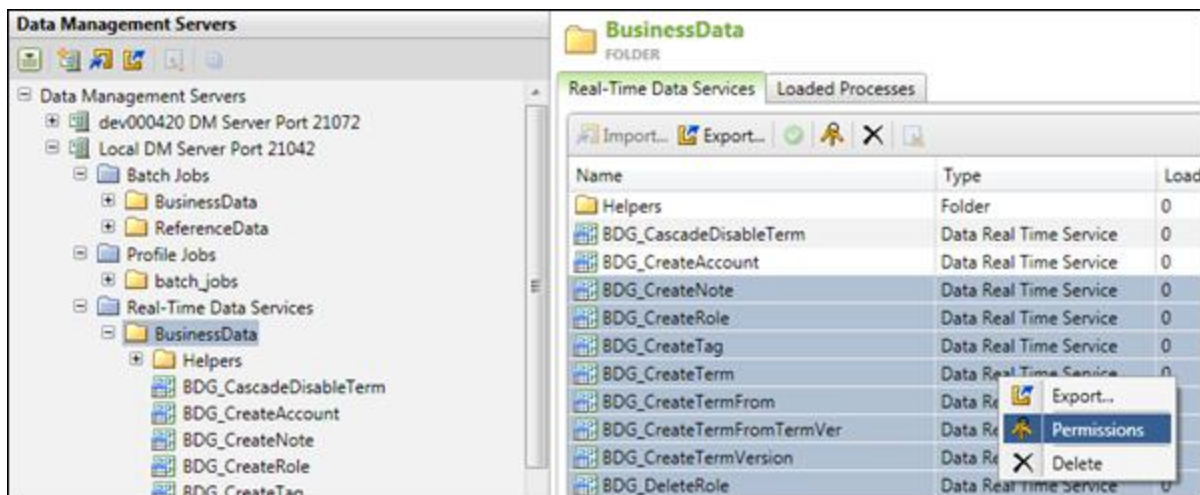
First provide Server level authorization. After logging in, select the server and then the Security tab.



"Add" users and/or groups and give them the needed permissions



Next assign job rights by selecting one or multiple jobs, right clicking and selecting Permissions.



This will bring up a dialog that will allow 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 will not be able 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 Data Management Server, once the execute privilege is provided, users must explicitly be allowed to run specific jobs.

Secure Socket Layer

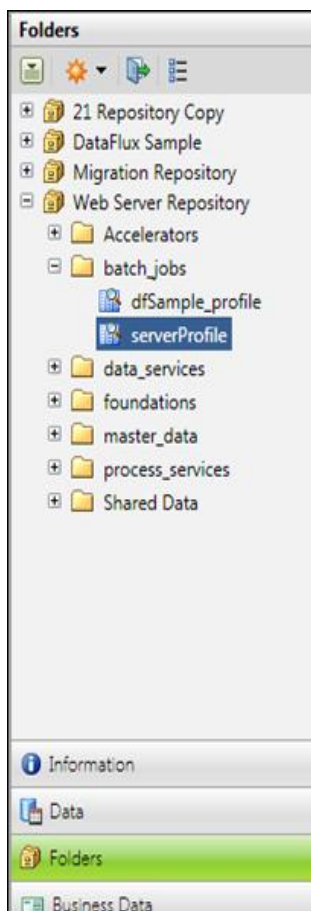
Secure Socket Layer (SSL) configuration still exists in the Integration Server. This setup and configuration should be handled when moving migrations. SSL support for LDAP or Active

Directory has moved to the Authentication Server. Please refer to the Data Management Server and Authentication Server Admin guides for these 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 Data Management Server 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
```

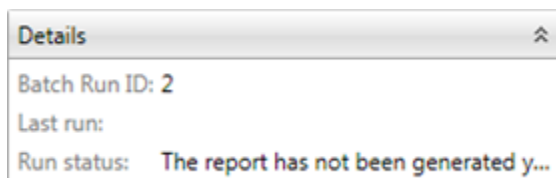
If we had scripts setup on the Integration Server host to run a profile and architect job, it might look like this

```
> 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 DM Server, here are what the commands would look like

```
> 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 server reads from, then go to the Folders riser and select the profile job.



If the Profile job is inside a Process job, here is how it would be run, assuming that the Profile job is using macros that need to be passed in at runtime:

```
> 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 DM Server

```
> 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

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

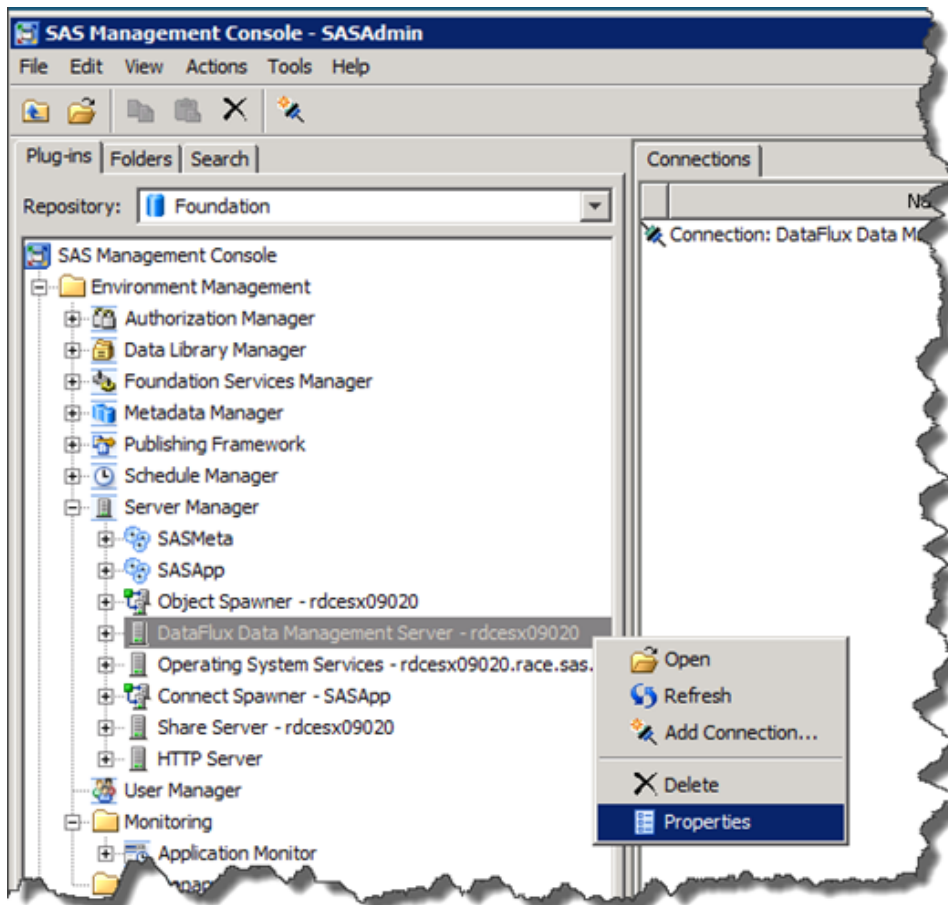
and then passed in on the command line with the following options

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

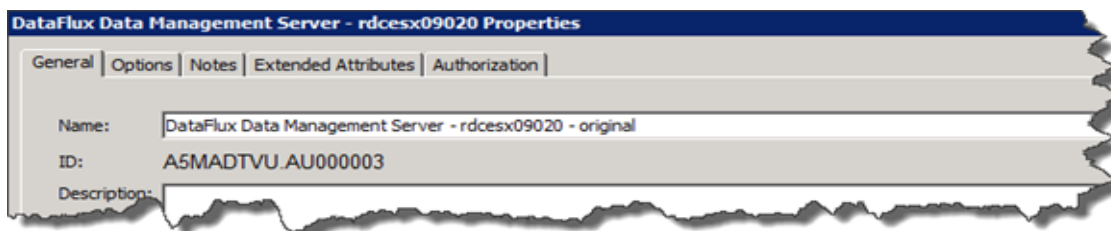
SAS Management Console

When moving from SAS 9.2 to SAS 9.3, a DM Server 2.1 entry is created in meta-data. This entry needs to be renamed and a DM Server 2.2 entry needs to be created with the same name. This will allow DI Studio jobs to continue to run without having to be updated to handle the change in servers.

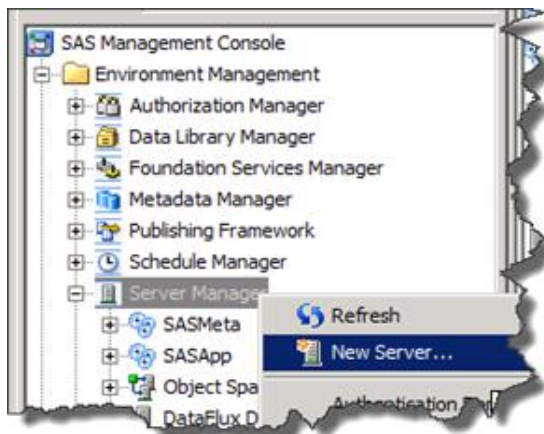
Open up SAS Management Console and rename the existing DM Server entry.



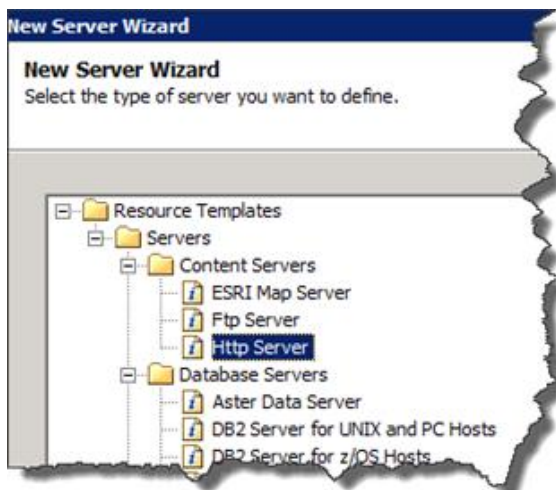
For the example, we will append " - original" to the end of the name.



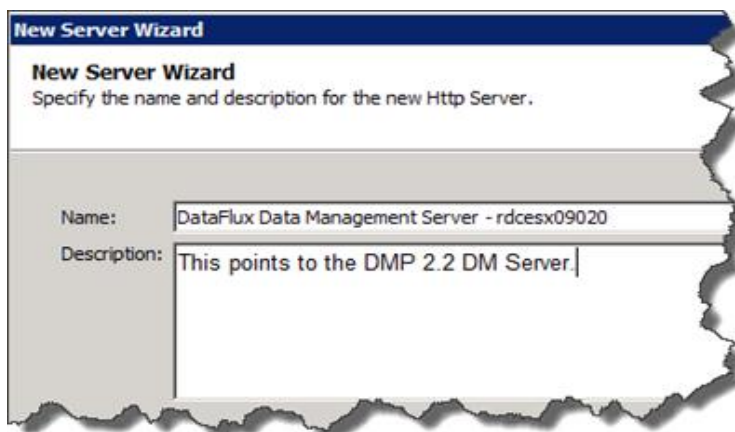
Now we will create a new server entry using the same name from the original Server entry.



In the next dialog select "Http Server" and select "Next"



Give it the same name that was used for the original entry. In this example, name = "DataFlux Data Management Server - rdcesx09020".



In the next dialog, make sure the following information is entered:

- Software Version = 2.2
- Vendor = DataFlux Corporation
- Base Path(s) = /

Select the "New" button

In the resulting dialog select "OK"

- Application Server Type = DataFlux Data Management Server

New Server Wizard
Enter the following server properties.

Software version: 2.2

Vendor: DataFlux Corporation

Base Path(s):

Available items:

Selected items: /

New... Edit... Delete

Application Server options

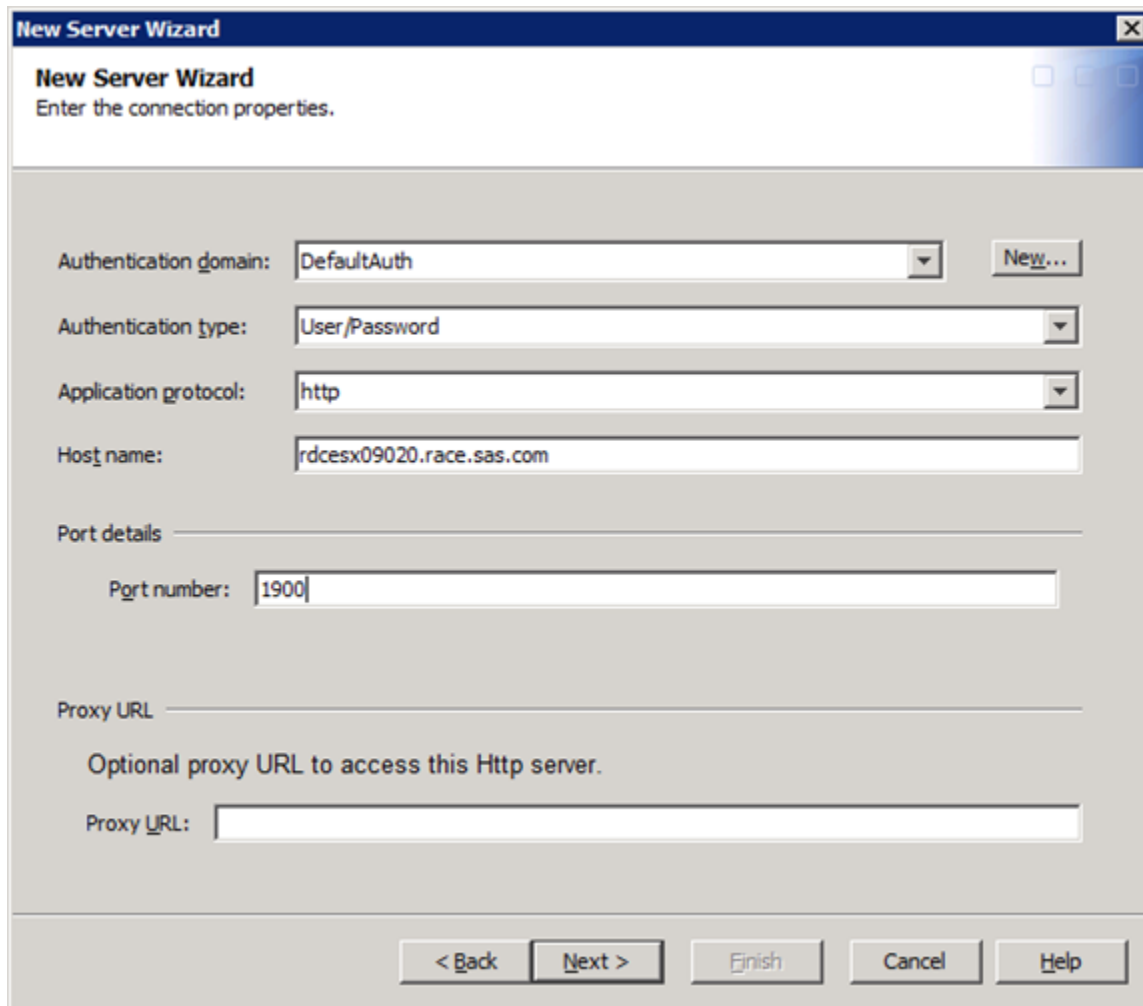
Application Server Type: DataFlux Data Management Server

☒ Supports SOAP-based Web Services

< Back Next > Finish Cancel Help

In the next dialog 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 DM Server is residing]
- Port Number: [This is the dmserver/soap/port from the dmserver.cfg file]
- Proxy URL: Leave blank



The image shows a 'New Server Wizard' dialog box with a blue title bar and standard window controls. The main area is light gray and contains several input fields and buttons. The fields are: 'Authentication domain' (a dropdown menu showing 'DefaultAuth' with a 'New...' button to its right), 'Authentication type' (a dropdown menu showing 'User/Password'), 'Application protocol' (a dropdown menu showing 'http'), and 'Host name' (a text box containing 'rdcesx09020.race.sas.com'). Below these is a section titled 'Port details' with a 'Port number' text box containing '1900'. Further down is a section titled 'Proxy URL' with a text box and the instruction 'Optional proxy URL to access this Http server.' At the bottom of the dialog are five buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

New Server Wizard
Enter the connection properties.

Authentication domain: DefaultAuth

Authentication type: User/Password

Application protocol: http

Host name: rdcesx09020.race.sas.com

Port details

Port number: 1900

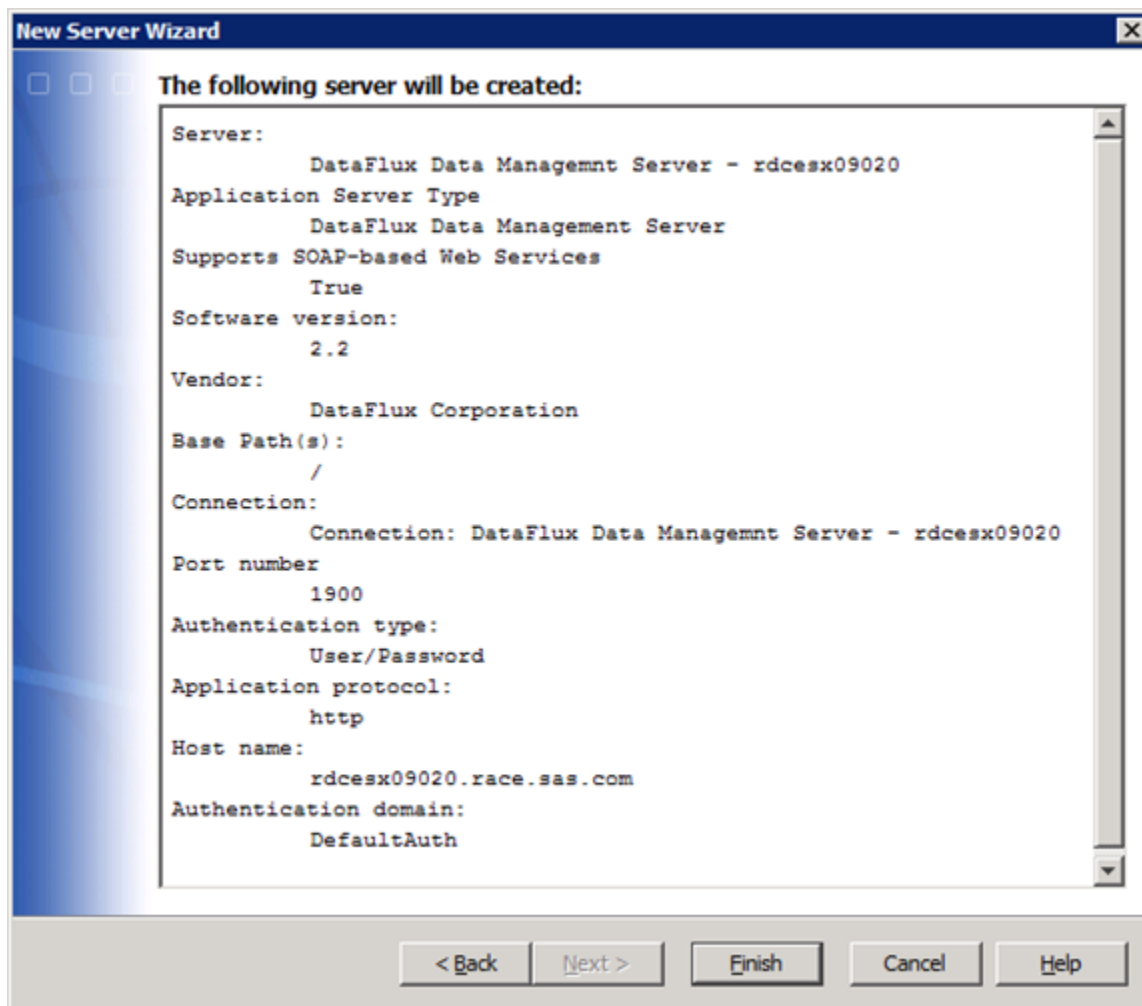
Proxy URL

Optional proxy URL to access this Http server.

Proxy URL:

< Back Next > Finish Cancel Help

Click Next to see the review dialog.



Before selecting finish, make sure of the following:

1. The name is the same as the one that was originally there.
2. The host reflects the location of where the DM Server resides
3. The port number matches what is in the dmserver.cfg file.

Once these are double checked, click finish and the SMC changes are complete.

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. However, the DMSVR functions support the DataFlux Data Management Server.

Replacing the DQSRV Functions with DMSRV Functions

Description of Function	Deprecated Name	New 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 dfPower 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 DQ Server is being used via SAS code only (meaning used by calling the PROCs in SAS code and not with EDI) customers will in association with changing the PROC names will need to update their SAS code to

- Point to the new data or process jobs.
 - These are the architect jobs that have been upgraded. Even though the names are the same the extension will change; Architect (.dmc) to Process (.djf) or Data (.ddf).
- Point to the new profile jobs

If DQ Server is a part of an EDI deployment, the job updates are covered with the 9.2 to 9.3 migration

Note that Data quality functions may produce different results than Data Management Platform 2.2 because the DQ Server engine is based on DMP 2.1. Please be aware if doing actions in DQ Server and Data Management Studio/Server and comparing results.

If trying to call a single page dfPower real time services as part of a DMP deployment, then the following needs to be added to the [DM Server install root]/etc/service.cfg file.

- DATASVC/IGNORE_DECLARED_VARS = yes

Migrating From Data Management Studio 2.1 to Data Management Studio 2.2

- [Configurations](#)
- [Reference Sources](#)
- [Data Connections](#)
- [Repositories](#)
- [Data and Process Jobs](#)
- [Profile Jobs](#)
- [Explorer Jobs](#)
- [Accelerators](#)
- [SAS Data Integration Studio](#)
- [Other](#)

Configurations

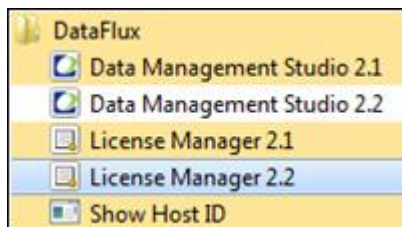
There are no changes in configuration settings. All settings that were honored in 2.1 are honored in 2.2. Post installation,

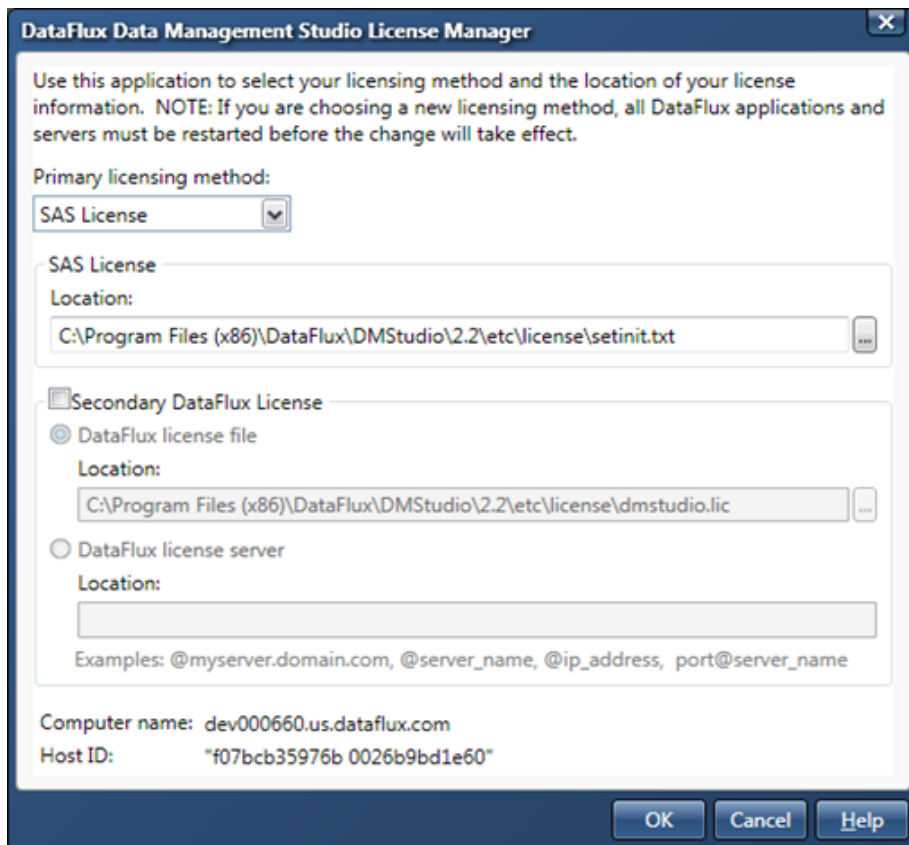
- Backup app.cfg and dfwfproc.cfg in [DM STUDIO 2.2 INSTALL ROOT]\etc
- Copy app.cfg and dfwfproc.cfg from [DM STUDIO 2.1 INSTALL ROOT]\etc to [DM STUDIO 2.2 INSTALL ROOT]\etc
- Open up [DM STUDIO 2.2 INSTALL ROOT]\etc\app.cfg and validate that the paths are correct for things like
 - Licenses
 - QKB
 - USPS data
 - Canada data
 - World data



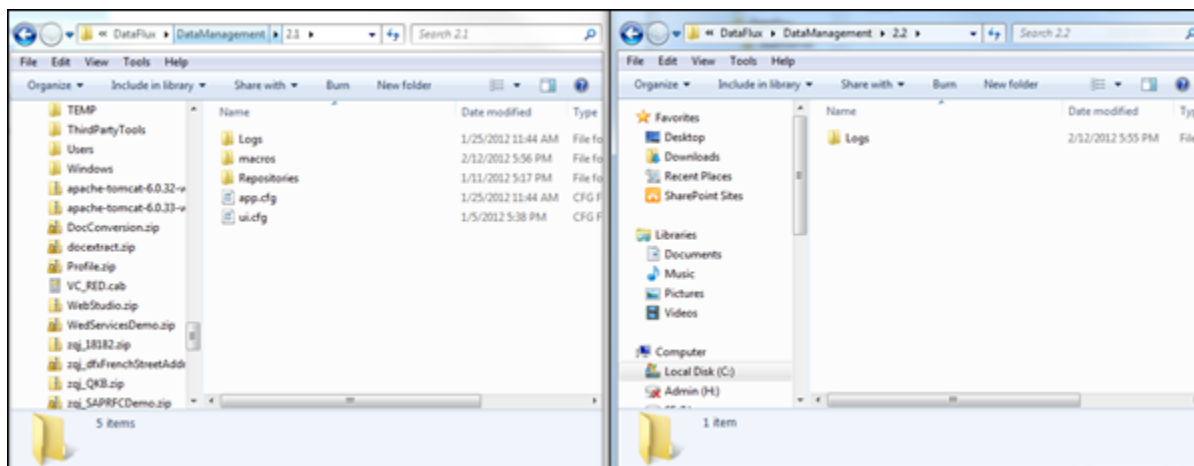
Note: Do not migrate any settings in any of the other files.

It is a good practice to make sure that license is configured correctly. The best way to do this is with the License Manager. This is found in the Windows programs menu.





To help with moving over the needed files over for user settings and saved credentials, you can run the following using the dfTool utility:



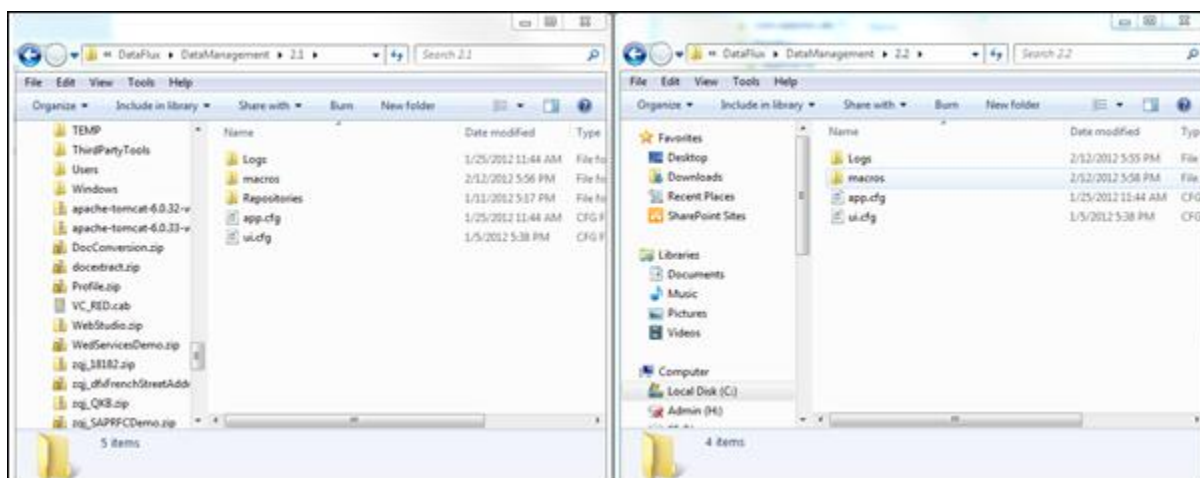

```

Administrator: Command Prompt
c:\Program Files (x86)\DataFlux\DMStudio\2.2>dftool
Please enter an action to take or help for more information
1 COPY
2 MACROFIX
3 REPOSCOPY
4 REPOSCREATE
5 REPOSDROP
6 REPOSUPGRADE
7 REPOSCOPYUPGRADE
8 STRESS
9 HELP

Please pick a number: 1
What would you like to copy?
1 8.1/8.2 saved credentials to 2.2
2 2.1 saved credentials to 2.2
3 2.1 users settings to 2.2
4 CUSTOM

Please pick a number: 3
Log File : c:\Program Files (x86)\DataFlux\DMStudio\2.2\MyLogfile.txt
c:\Program Files (x86)\DataFlux\DMStudio\2.2>dftool

```



The copying of user's settings is copying *.cfg files from

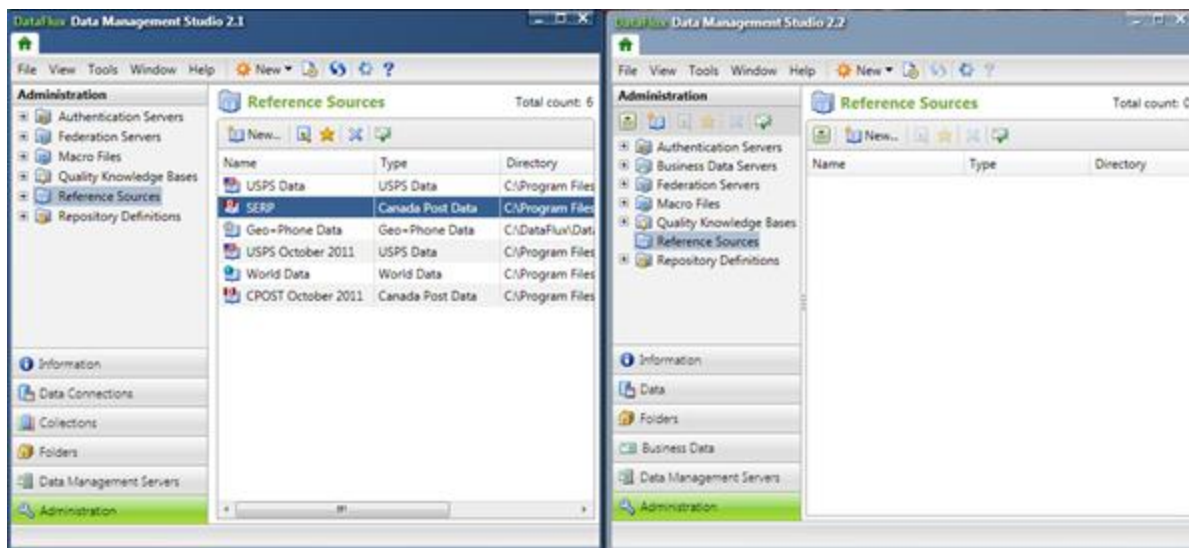
- %APPDATA%\DataFlux\DataManagement\2.1 to %APPDATA%\DataFlux\DataManagement\2.2
- %APPDATA%\DataFlux\DataManagement\2.1\macros to %APPDATA%\DataFlux\DataManagement\2.2\macros
- It will not copy anything from the "Logs" and "Repositories" directories.

 **Note:** Do not copy anything from Logs or Repositories.

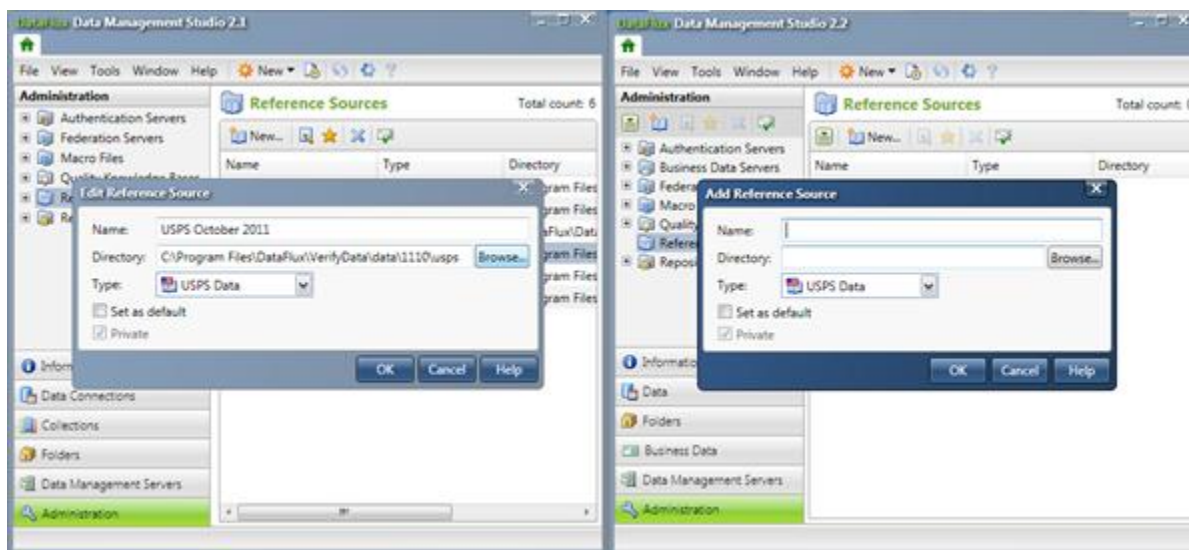
All configurations have now been moved over.

Reference Sources

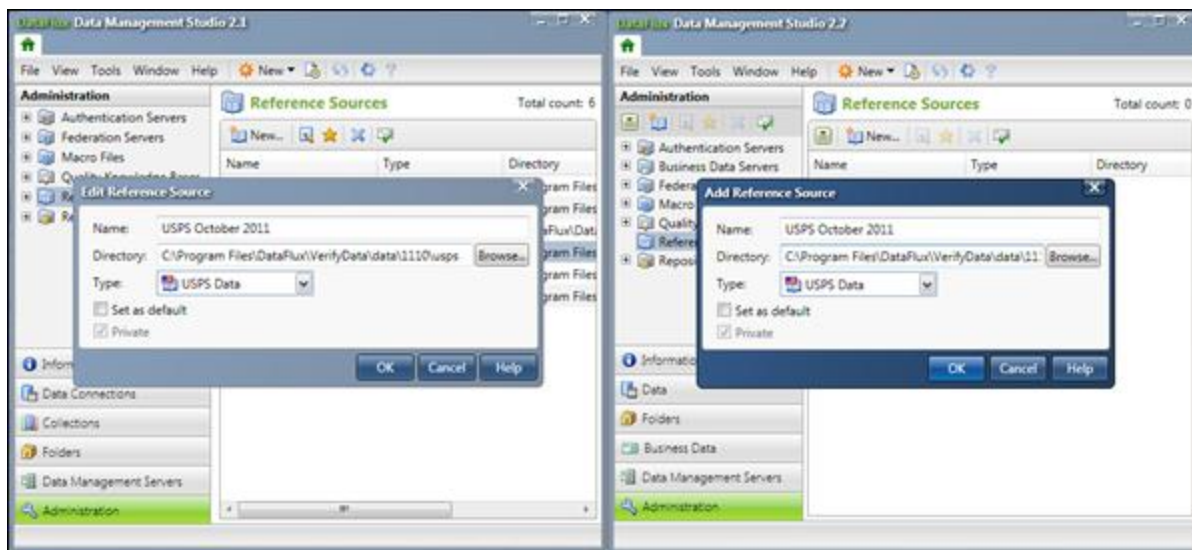
Once Data Management Studio is installed, these will need to be re-registered. Open up Data Management Studio 2.1 and navigate to Administration> Reference Sources. Open up Data Management Studio 2.2 and navigate to the same location.



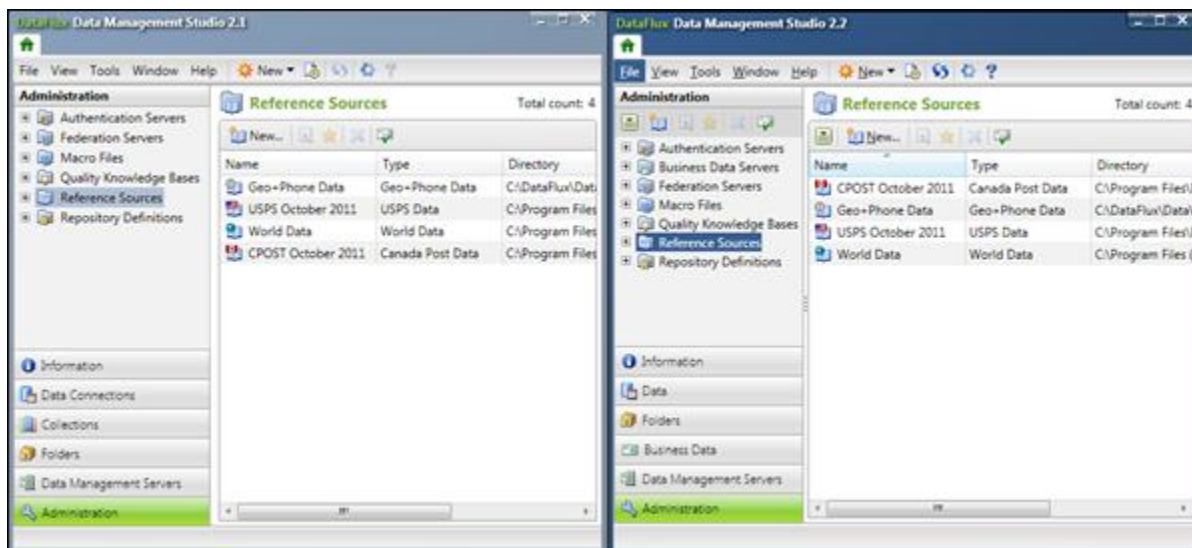
For each reference source that you want to copy, open up the properties in 2.1 and create a new Reference Source in 2.2



and copy the contents from 2.1 to 2.2.



The end result is that all resources desired should be copied across.



Data Connections

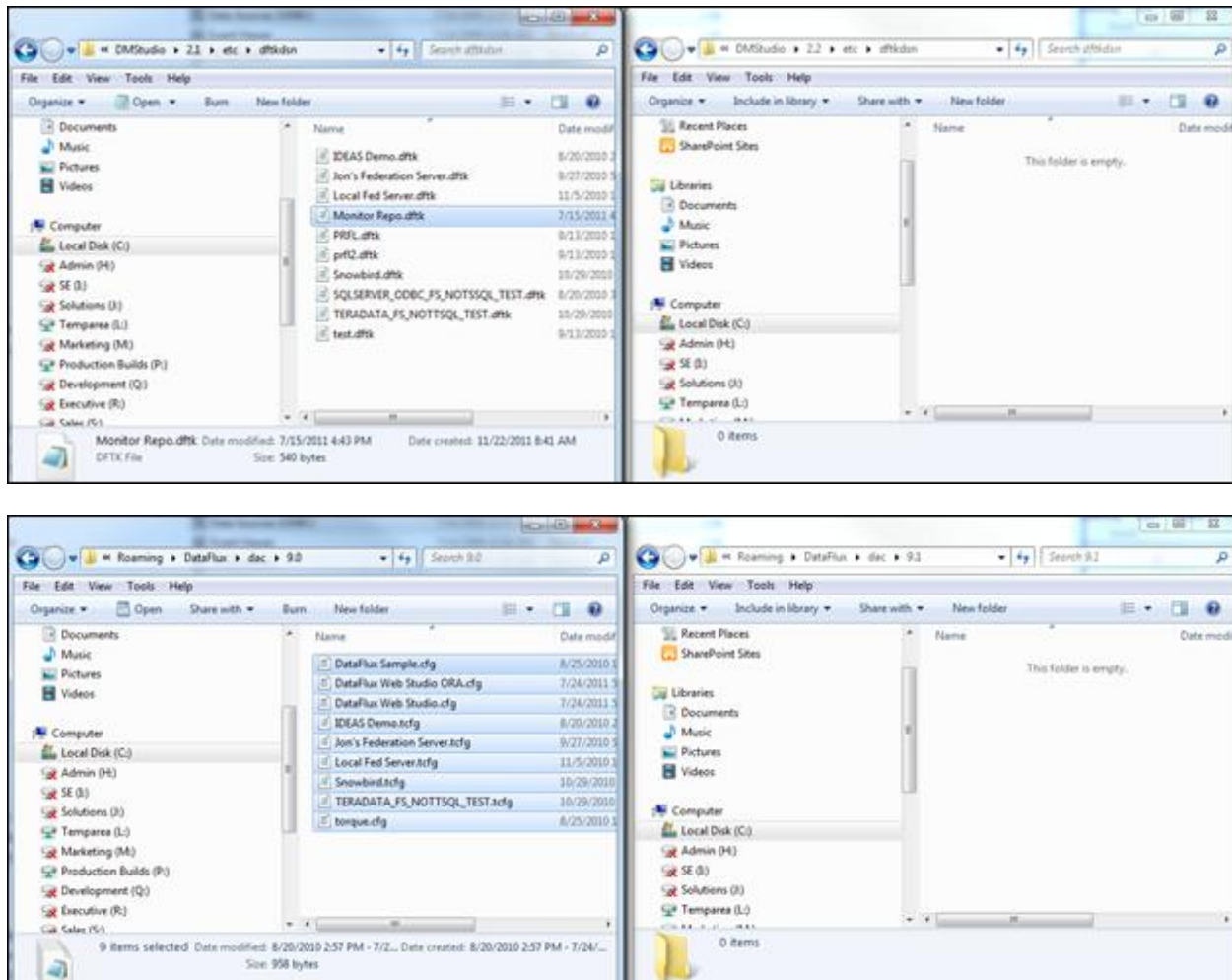
Assuming that Data Management Studio is being installed on the same box that the previous version of DM Studio, there is no extra work required to migrate over any ODBC connections. If Data Management Studio is being installed on a new box, then one will have to migrate the ODBC connections defined in the ODBC Administrator manually.

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

For any custom, Federation Server or localized Federation Server definitions that have been created you will need to move these over as well. The DF Tool utility can be used to accomplish this. It will copy definitions from [DM STUDIO 2.1 INSTALL ROOT]\etc\dfktdsn to

[DM STUDIO 2.2 INSTALL ROOT]\etc\dftkdsn and credentials from %APPDATA%\DataFlux\dac\9.0 to %APPDATA%\DataFlux\dac\9.1.

Before



Run the DF Tool Utility. This should be run from the root of DM Studio 2.2. When providing the location of the DMP 2.1 root, do not surround it with quotes.


```

Administrator: Command Prompt

c:\Program Files (x86)\DataFlux\DMStudio\2.2\dftool.bat
Please enter an action to take or help for more information
1 COPY
2 MACROFIX
3 REPOSCOPY
4 REPOSCREATE
5 REPOSDROP
6 REPOSUPGRADE
7 REPOSCOPYUPGRADE
8 STRESS
9 HELP

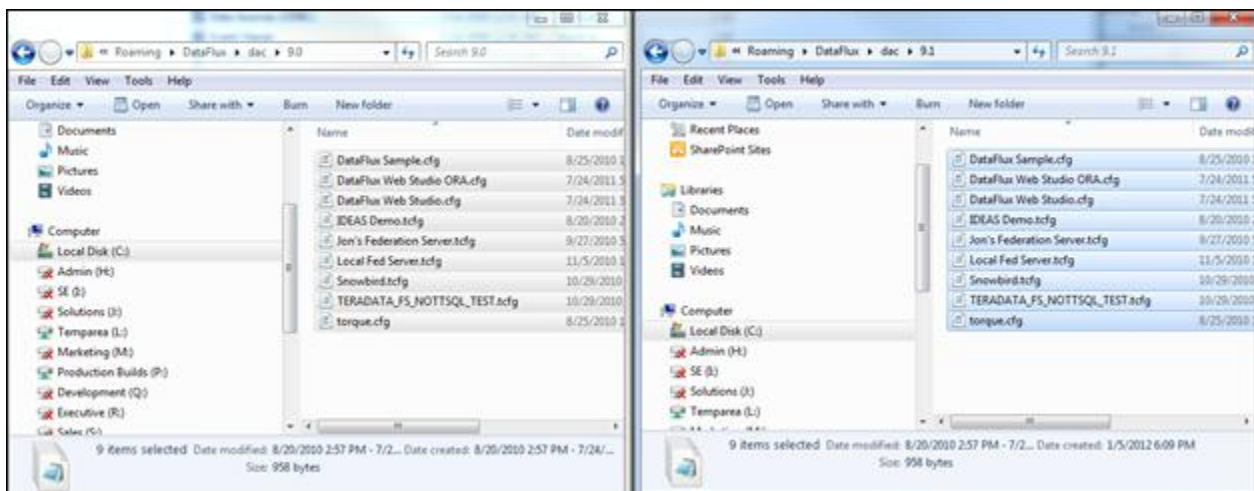
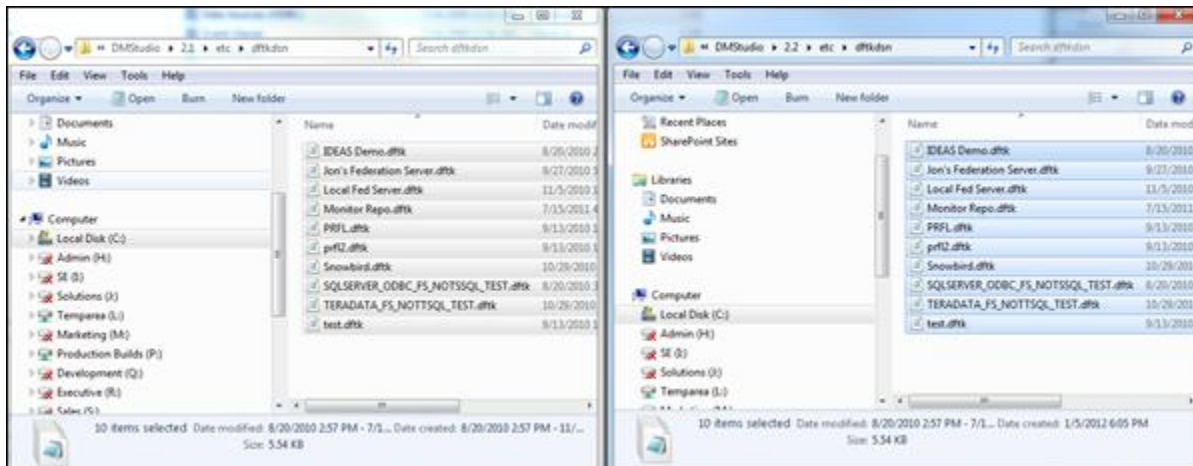
Please pick a number: 1
What would you like to copy?
1 dfPower 8.1/8.2 saved credentials to DM Studio 2.2
2 DM Studio 2.1 special connections and saved credentials to DM Studio 2.2
3 DM Studio 2.1 users settings to DM Studio 2.2
4 CUSTOM

Please pick a number: 2
Please enter the root of 2.1 [C:\Program Files\DataFlux\DMStudio\2.1]: C:\Program Files (x86)\DataFlux\DMStudio\2.1
2.1 Root: "C:\Program Files (x86)\DataFlux\DMStudio\2.1"
None: "c:\Program Files (x86)\DataFlux\DMStudio\2.2\"

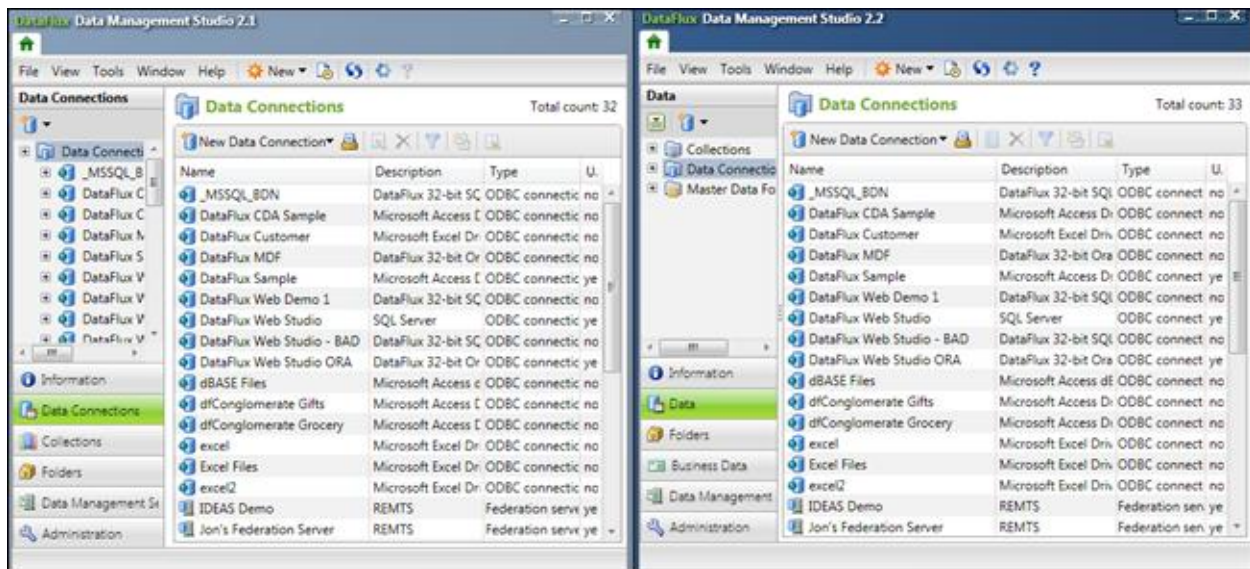
Log File : c:\Program Files (x86)\DataFlux\DMStudio\2.2\MyLogFile.txt
Log File : c:\Program Files (x86)\DataFlux\DMStudio\2.2\MyLogFile.txt
c:\Program Files (x86)\DataFlux\DMStudio\2.2>

```

After



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.

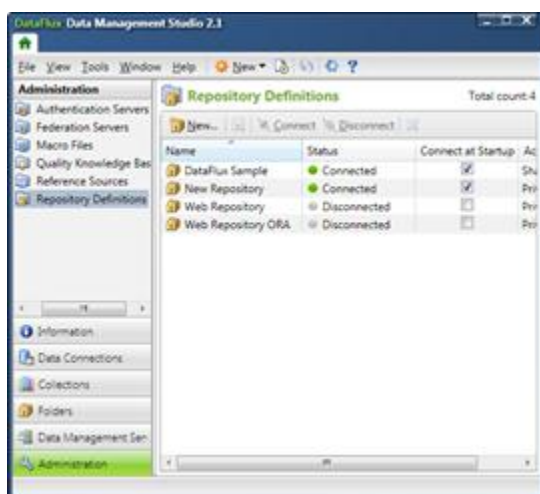


Repositories

- [File-Based Data Storage](#)
- [RDBMS-Based Data Storage](#)

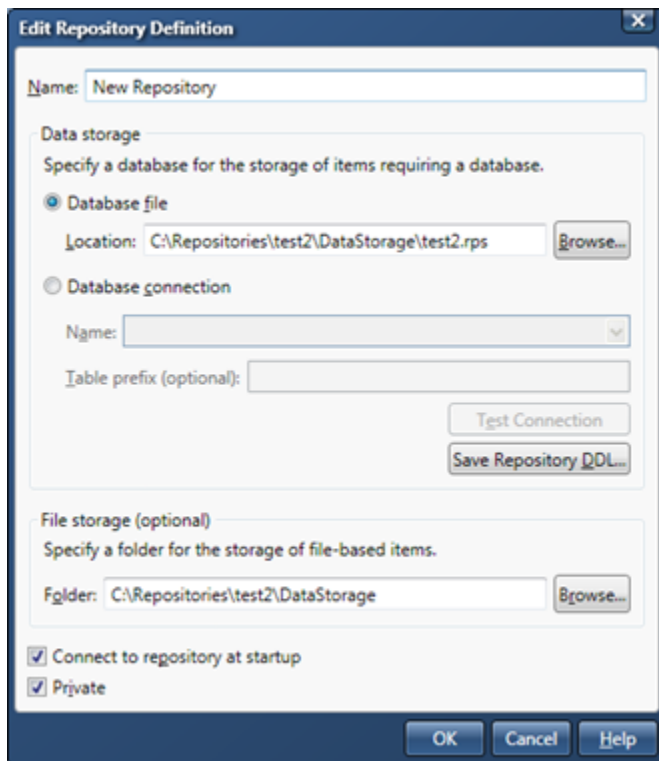
File-Based Data Storage

For each repository that exists in 2.1, it will need to be recreated in 2.2. It is highly recommended that you not upgrade the 2.1 repository as an upgrade will mean that 2.1 cannot use the repository. First, open up 2.1 and go to the Administration > Repository Definitions.

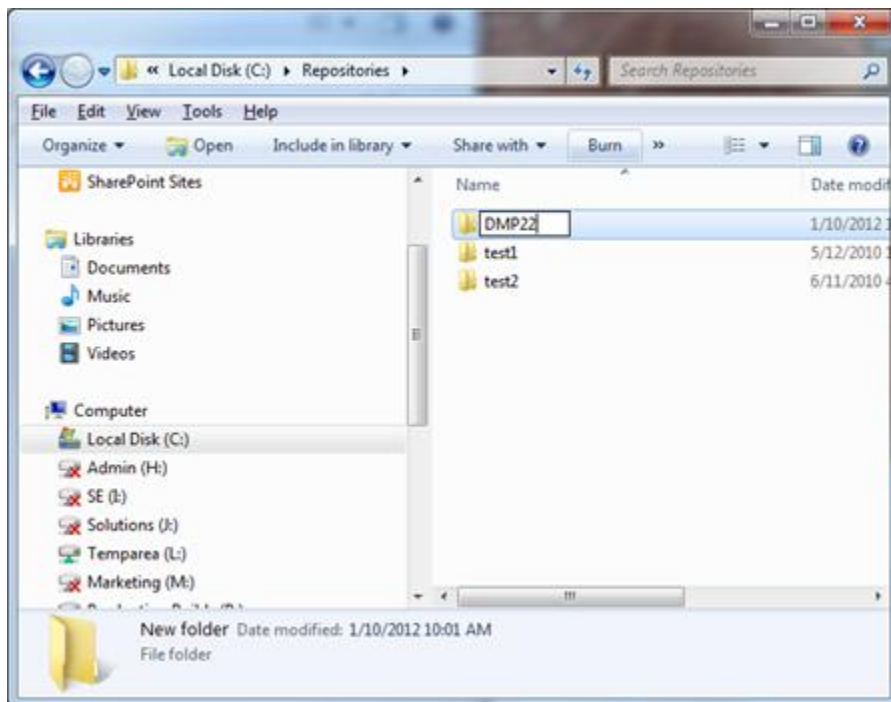


Except for the DataFlux Sample repository that is defined, each listed repository that needs to be available in 2.2 should be migrated.

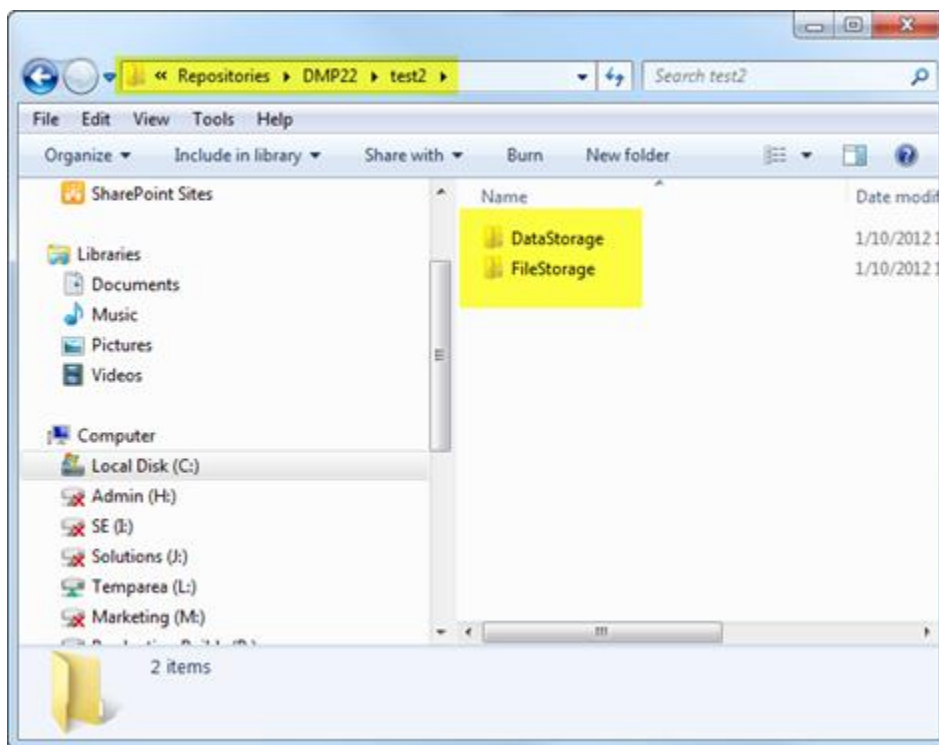
Open up the repository definition. If the repository is connected to, go ahead and disconnect. This will allow one to copy and paste.



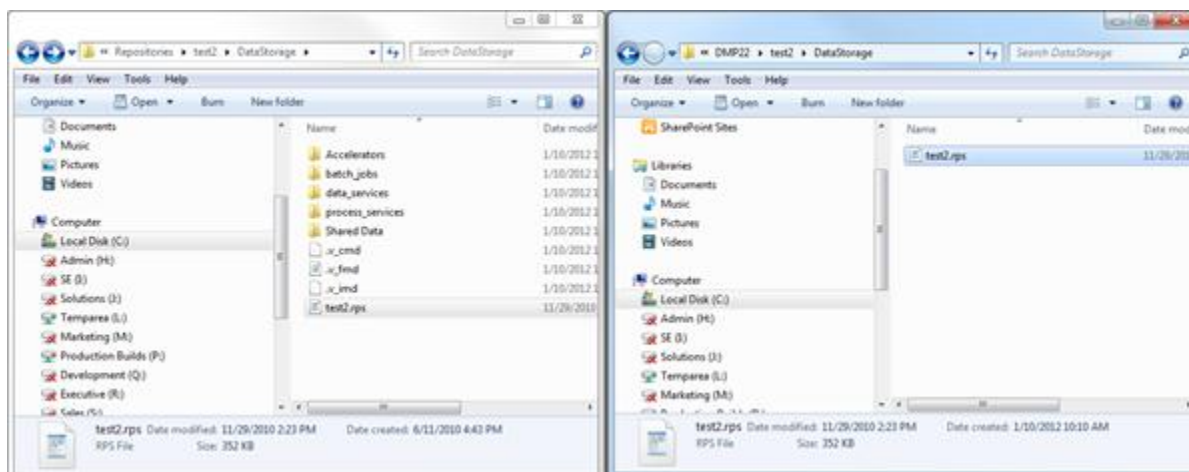
In this case it is file based data storage. Before creating the new repository, the physical locations on disk where the folders will reside need to be created. Open up Windows Explorer, navigate to where you want to make the 2.2 repository folders. In the following example it will be in the same base folder but will exist under DMP22. Notice in the following example that a new folder is created and it is called DMP22.



Since the repository creation will not create folders, we once again need to create a couple more folders under DMP22 in order to get everything to work. The structure for the new repository can be whatever is desired. In the example, we are going to create the same structure that exists for 2.1 but only under the DMP22 folder.

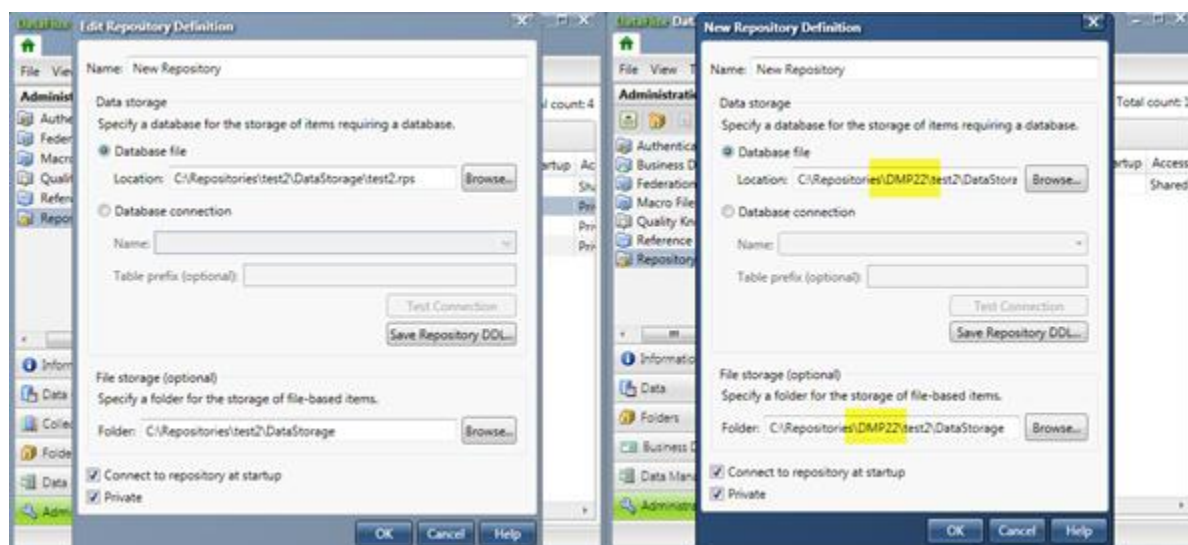


After creating the folders, since this repository has a file based data storage we need to copy one file over to the new DataStorage location. Go back to the 2.1 DataStorage location and copy the *.rps file to the 2.2 DataStorage location. In our example we are copying
 C:\Repositories\test2\DataStorage\test2.rps to
 C:\Repositories\DMP22\test2\DataStorage\test2.rps.



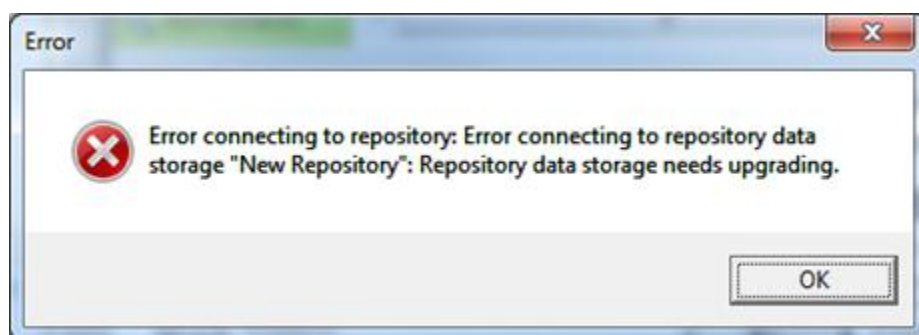
Now having created the folders and copied over the RPS file we need, go back into DM Studio and create the DMP 2.2 repository definition. In Data Management Studio 2.2, navigate to Administration > Repository Definitions and create a new repository. If you feel

confident, copy, paste and edit from the 2.1 settings or use the Browse buttons to navigate to the specific folders.



Highlighted above is the one difference between the 2.1 definition on the left and the 2.2 definition on the right which is that the two pieces of the repository live under the DMP22 folder that was created.

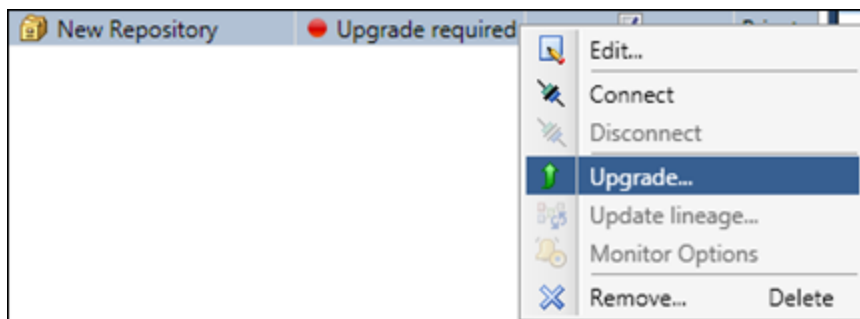
Cancel out of the 2.1 repository property window. Make sure that the settings for the 2.2 repository are pointing to the new locations that were just created and save. This will result in the following dialog



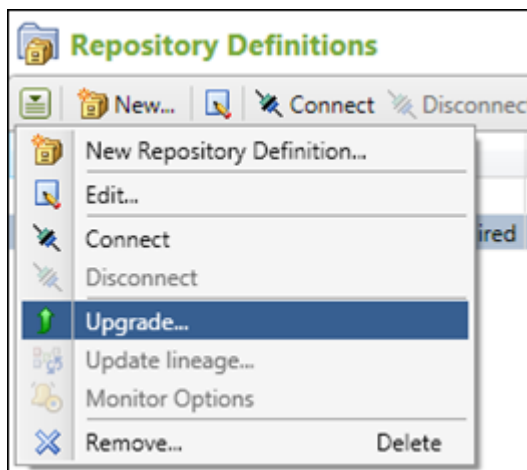
Select Ok. This will show the following in the 2.2 Repository Definitions screen



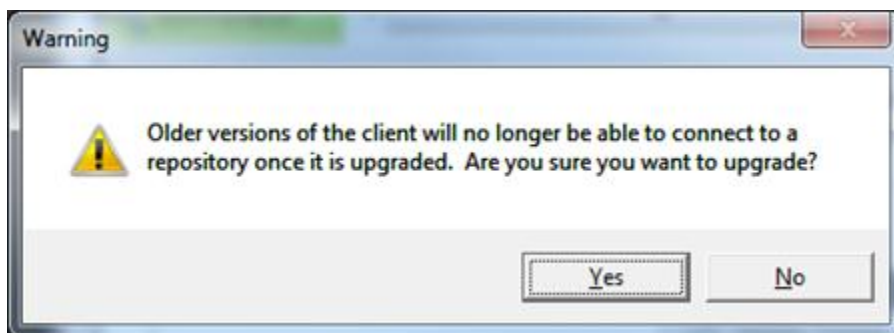
Right click on the repository and select **Upgrade**.



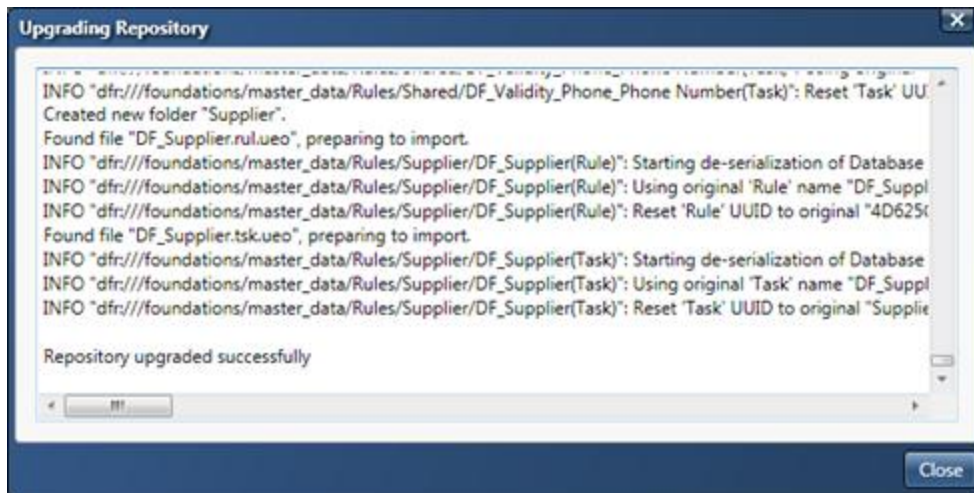
Or, from the Tools menu, select the repository and choose **Upgrade**.



Once selecting Upgrade... the following dialog will appear



Select yes as this repository will only be for DMP 2.2. This will then start the upgrade process. The end result should be a dialog like the following



Select close which will take you back to the Repository Definitions view. The new repository definition should look like



Select it and either via right click, tool bar or Tools menu, select connect



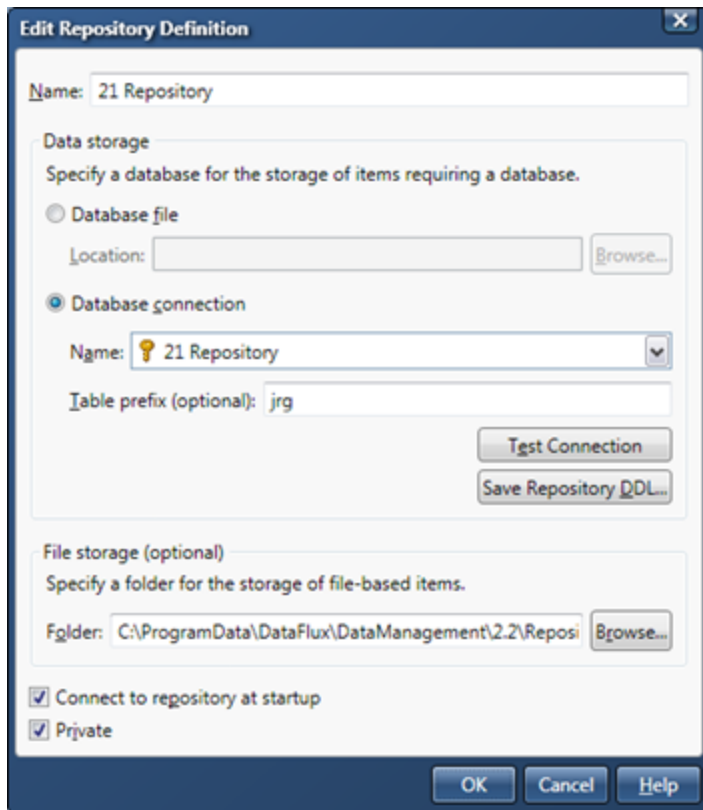
Which will make the definition now look like



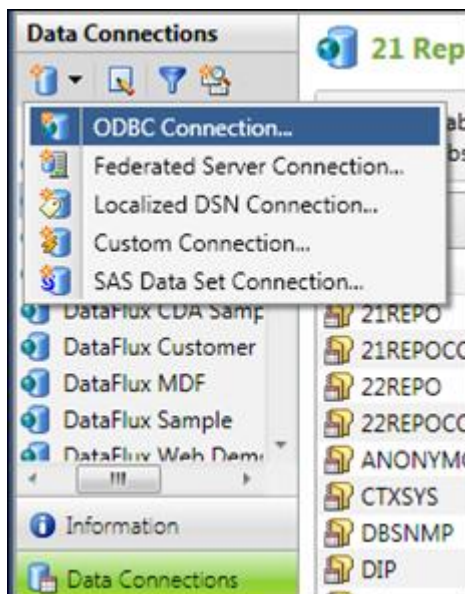
RDBMS-Based Data Storage

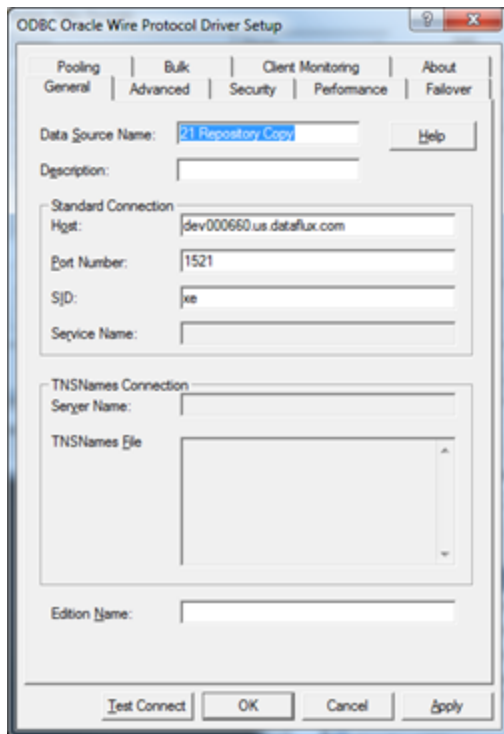
For RDBMS systems like Oracle, SQL Server, etc. the process is a little different. It is not recommended to reuse the 2.1 repository as the upgrade process will mean it can no longer be used with Data Management Studio 2.1. Before the repository is copied, identify where the repository should be copied too. In this example the copy will be put into a new Oracle schema.

In the following example, we have a 2.1 repository that was created called 21 Repository. This is the repository we are going to copy.

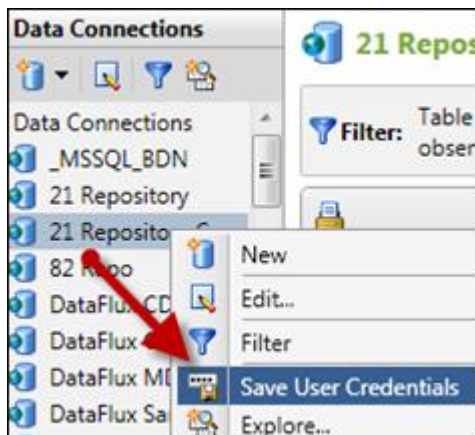


In DM Studio 2.1, open up the ODBC administrator and create a new connection.

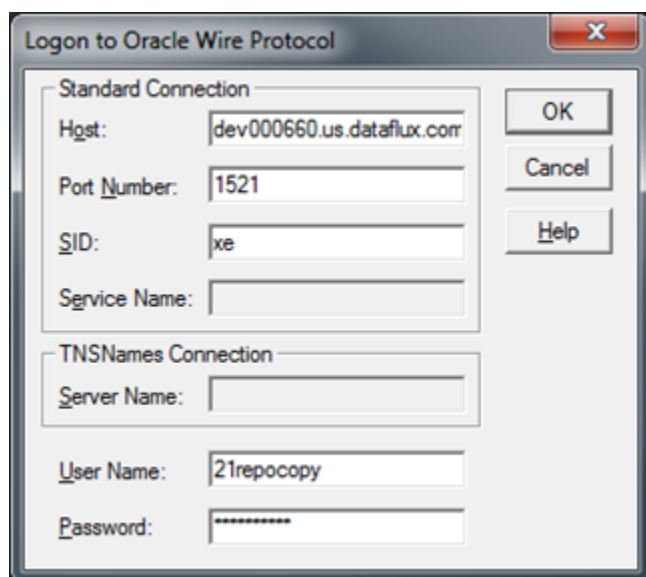




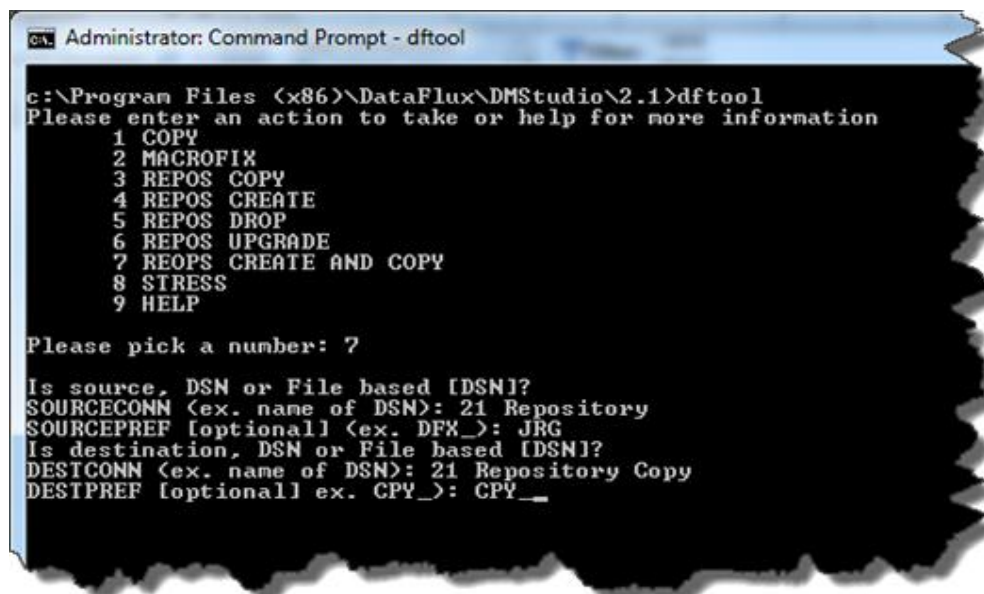
After creating the new ODBC DSN, go back into DM Studio and under the Data Connections riser save the connection credentials.



Follows is an example of what an Oracle DSN will provide:



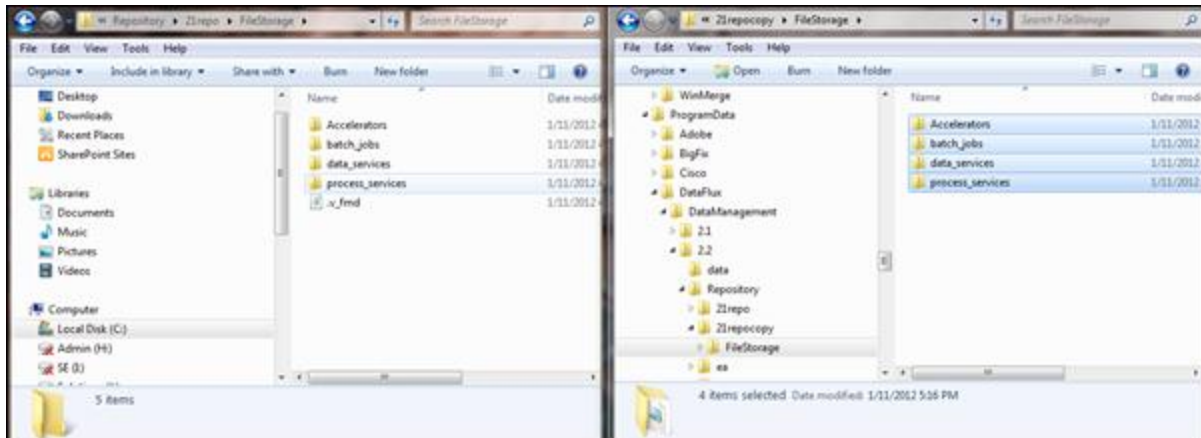
To copy the repository, get the dfTool Utility from <http://www.dataflux.com> and save it in the DM Studio 2.1 root directory. Then run the following to create and copy the existing repository.



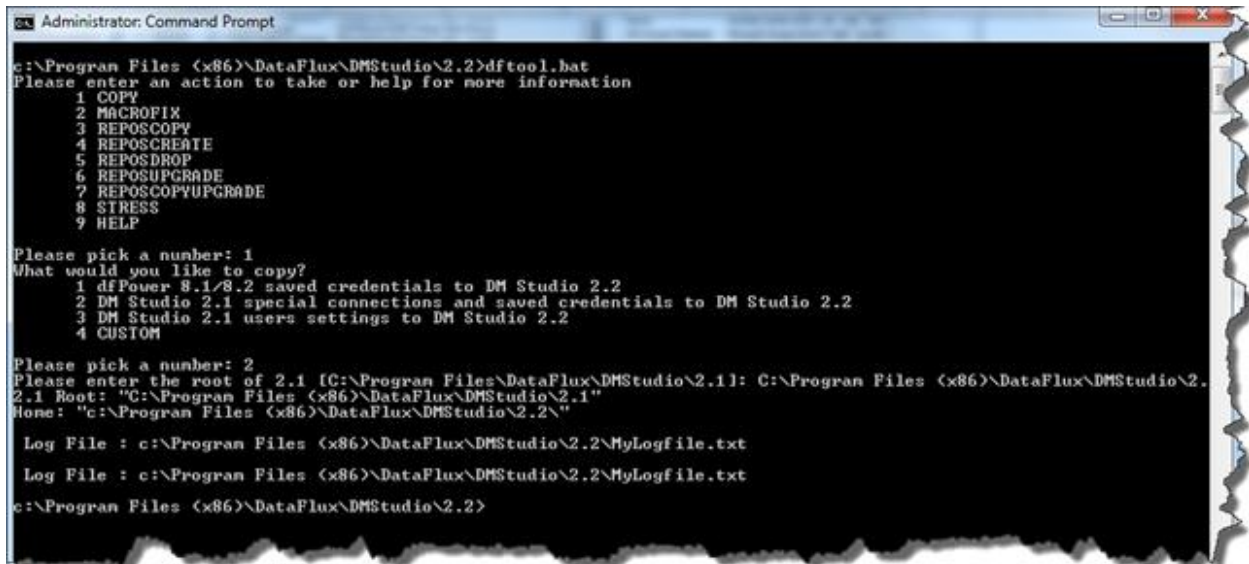
Next, do the following

- Copy the 2.1 file storage location to be used with a 2.2 file storage configuration
- Copy over the saved credentials for the copy of the repository DSN
- Create a 2.2 repository using the file storage copy and the 2.1 repository copy

Copy everything that is in the file storage location from the original repository to the new one.

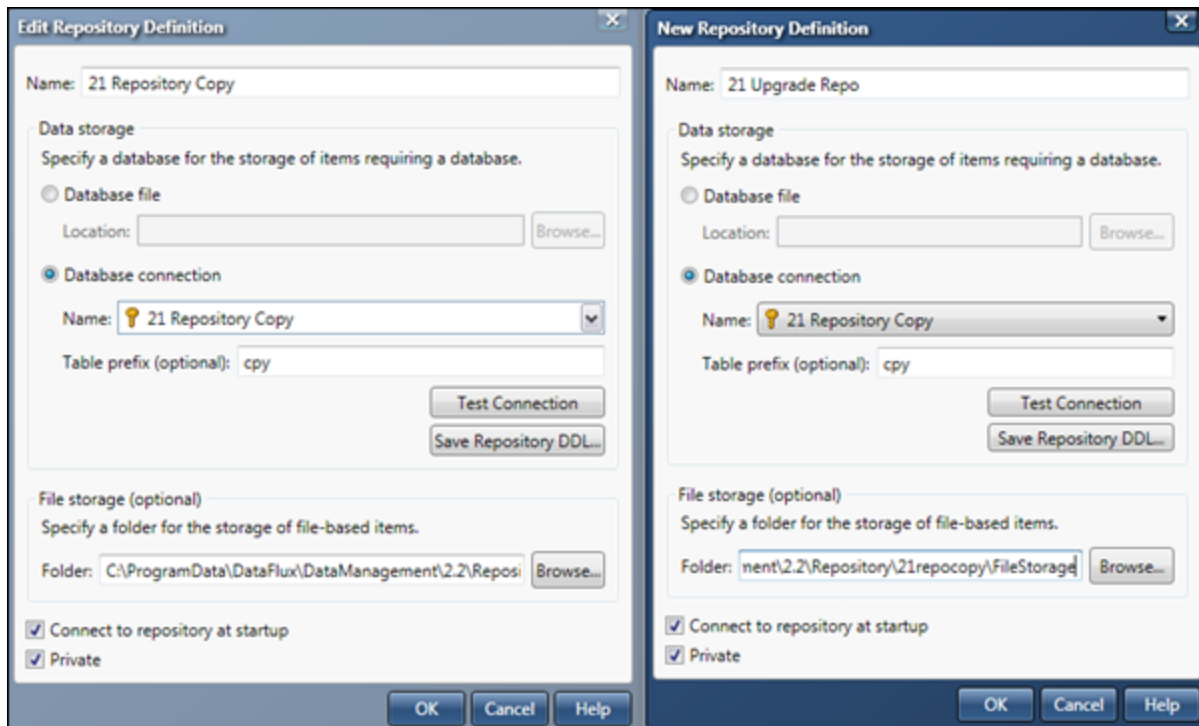


Copy the credentials over using the dfTool Utility

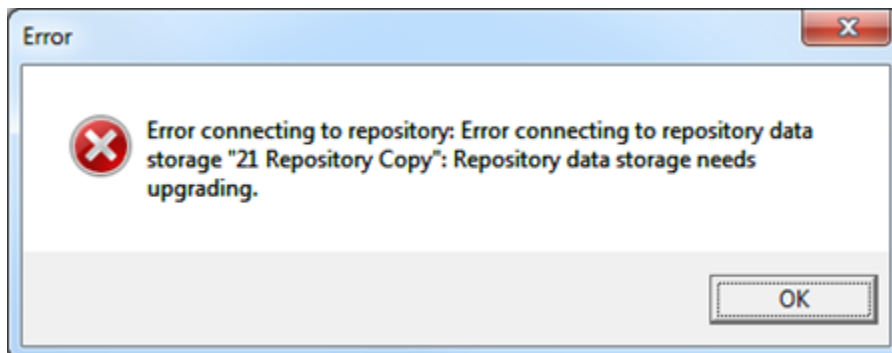


Open up DM Studio 2.2 and go to Administration > Repository Definitions and create a new repository

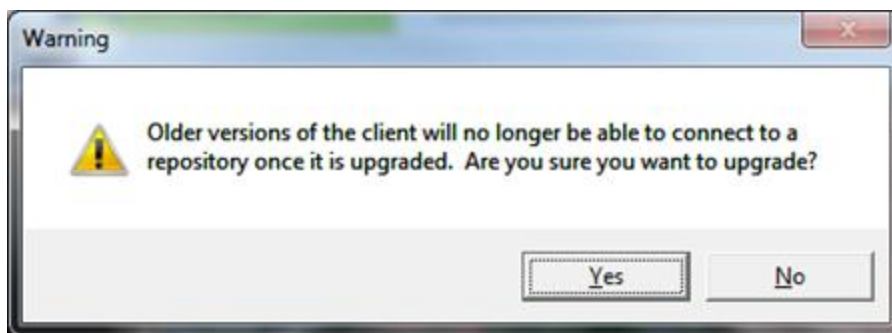
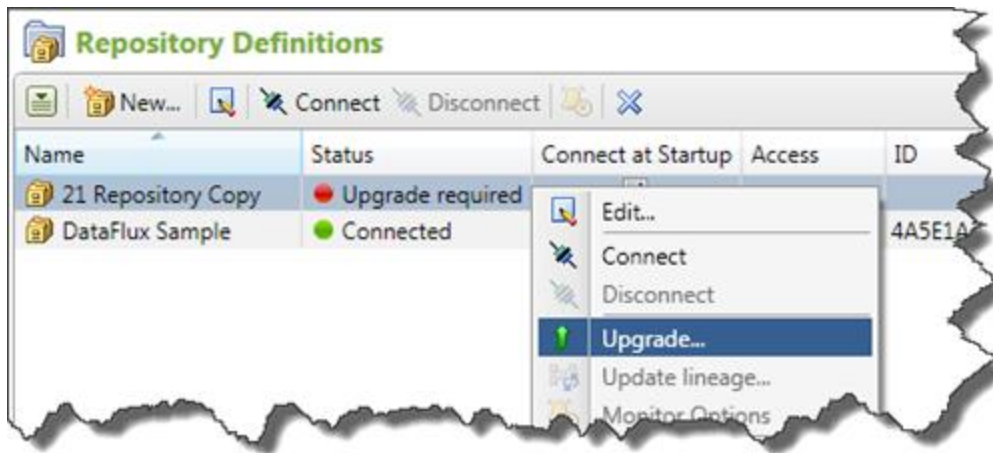
Now create the new repository configuration in 2.2 via the Administration > Repository Definition screen. Below is the 2.1 configuration on the left and the 2.2 version on the right. Notice that except for the name, the rest of the configuration is the same.



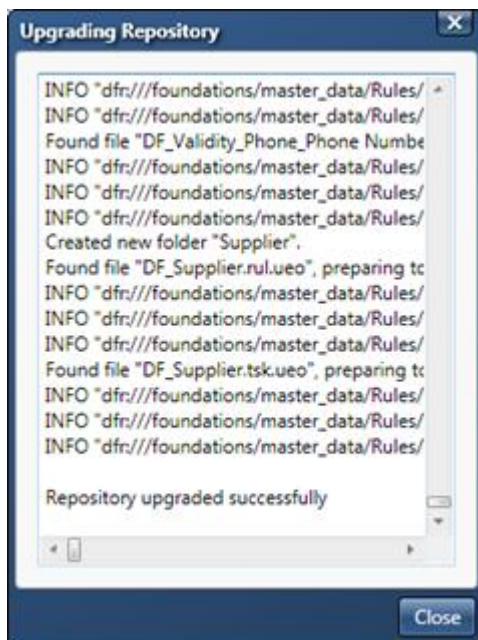
Cancel out of the 2.1 repository definition. Save the 2.2 repository definition. A notification about needing to upgrade will be given



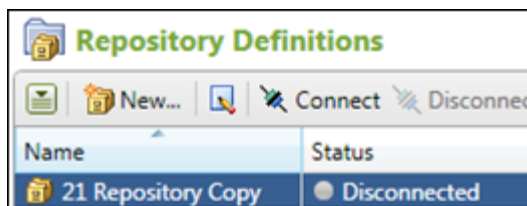
Click ok and then select the repository definition that was just created, right click and from the resulting menu select Upgrade...



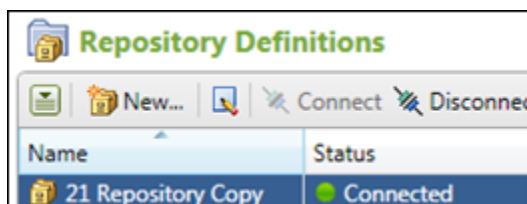
Select Yes and the upgrade process will start. At the end of it one should see something like the following



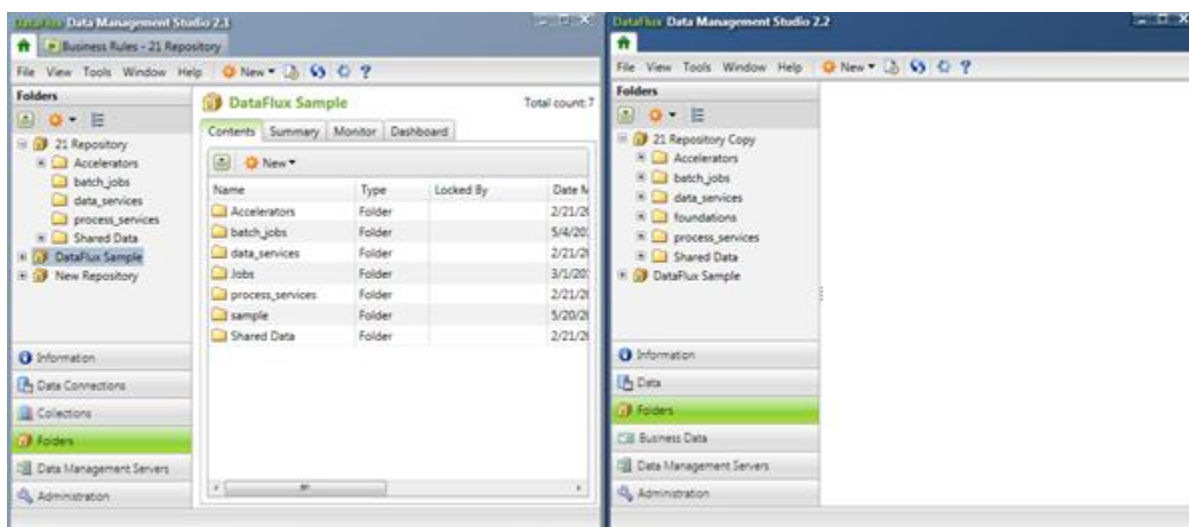
Select Close and then select the definition again and choose Connect



which should result in



Now if you go look at the Folders riser for both DM Studio 2.1 and 2.2, the original repository and the 2.2 upgraded repository should relatively be the same. The one difference is that there will be some more stuff in 2.2.



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 it is determined that the cutover to 2.2 can be made, it might be good to remove the 2.2 repositories and repeat the steps once more time to make sure 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 will cover the migration of the process and data jobs. There is no further work that is needed.

Profile Jobs

When the data storage location of an existing repository is copied over this will cover the migration of the profile jobs and reports. There is no further work that is needed.

Explorer Jobs

When the data storage location of an existing repository is copied over this will cover the migration of the explorer jobs. There is no further work that is needed.

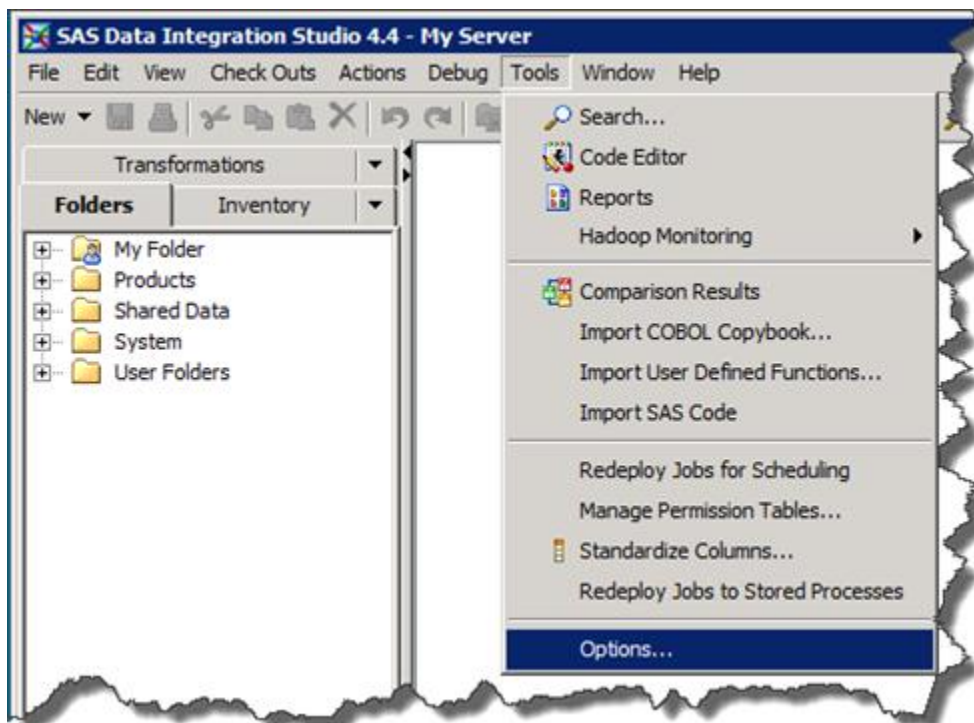
Accelerators

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

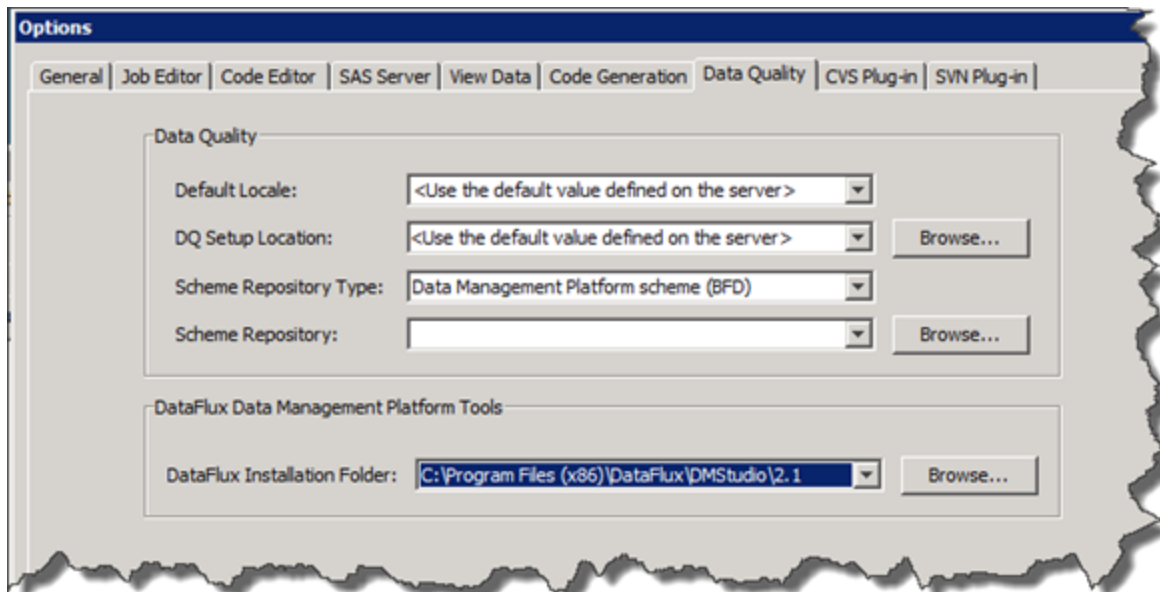
SAS Data Integration Studio

This section assumes that a user has already migrated from dfPower 8.* to DMP 2.1. If this is not the case, then please see section 1.3.1.9 SAS DI Studio which will provide the steps to get DI Studio to work with DMP 2.2.

In DI Studio we also need to register the path of where DM Studio 2.2 lives. Open up DI Studio and go to Tools > Options > Data Quality



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 will come over when the repository is migrated. By default all migrated Rules and Tasks will show up Data Management Studio in the Folders riser under the Shared Data folder.

Migrating From Data Management Server v. 2.1 to Data Management Server v. 2.2

- [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

The following places are where configuration settings will need to be pulled from:

- [DM_SERVER_2.1_INSTALL_ROOT]/
 - etc/dftkdsn to [DM_SERVER_2.2_INSTALL_ROOT]/etc/dftkdsn > copy all *.dftk files over
 - etc/dsn to [DM_SERVER_2.2_INSTALL_ROOT]/etc/dsn > copy all *.cfg files over
 - etc/macros to [DM_SERVER_2.2_INSTALL_ROOT]/etc/macros > copy all *.cfg files over
 - etc/security to [DM_SERVER_2.2_INSTALL_ROOT]/etc/security > copy * over
 - etc/
 - o app.cfg
 - o dfwfproc.cfg
 - o dfwsvc.cfg
 - o dmserver.cfg
 - o macros.cfg

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

2.2 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	--

2.2 Setting	2.2 File	2.1 Setting (equivalent unless otherwise noted)	2.1 File
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_ACCESS_PUBLIC	dmserver.cfg	--	--
DMSERVER/SECURE/DEFAULT_ACCESS_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_ERRS	dmserver.cfg	Same	--
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	--

2.2 Setting	2.2 File	2.1 Setting (equivalent unless otherwise noted)	2.1 File
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. 2.1 Settings and The v. 2.2 Equivalents

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.

If dfPower real time services are still being used in a DMP deployment, then the following needs to be added to the [DM Server install root]/etc/service.cfg file.

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

Reference Sources

When the configurations for 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

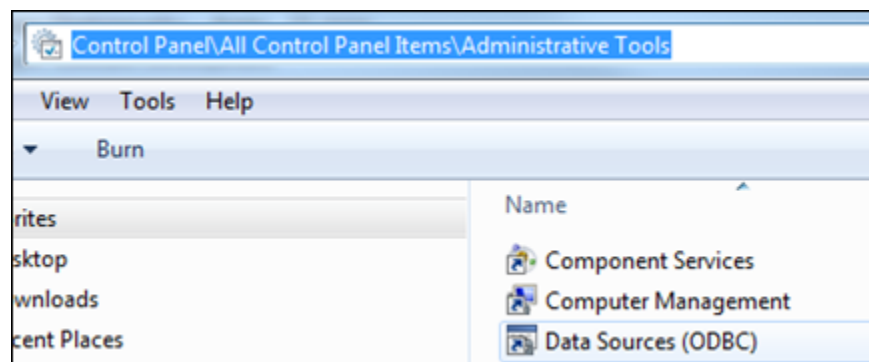
Assuming that Data Management Server is being installed on the same box that the previous version of the DM Server, there is no extra work required to migrate over any ODBC connections. If Data Management Server is being installed on a new box, then one will have to migrate the ODBC connections defined in the ODBC Administrator manually.

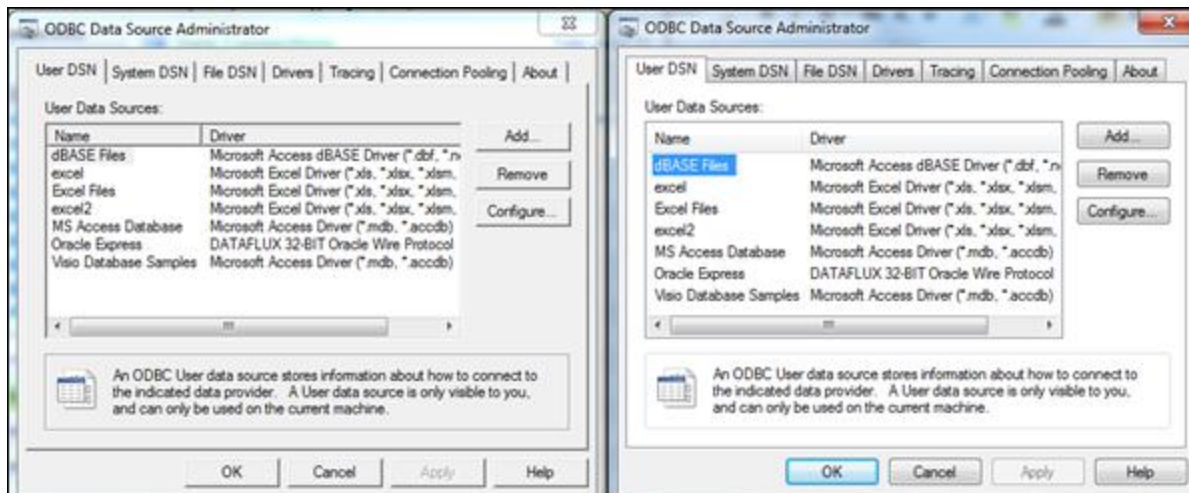
ODBC data connections that are defined on the box will be upgraded automatically to the latest version of the DataFlux ODBC drivers. This means that both dfPower and Data Management Studio will be using the same version of ODBC drivers.

A caveat to the above statements is if a 32 bit version of the 2.1 DM Server was installed on a 64 bit box. If the 64 bit version of 2.2 Data Management Server is installed on the same box, then the ODBC DSNs must be recreated through the 64 bit version of the ODBC Data Source Administrator. Best way to do this copying is open up the 32 bit ODBC Administrator via Data Management Studio 2.2 Data Connections Riser



Then open up the 64 bit ODBC Administrator via the Control Panel

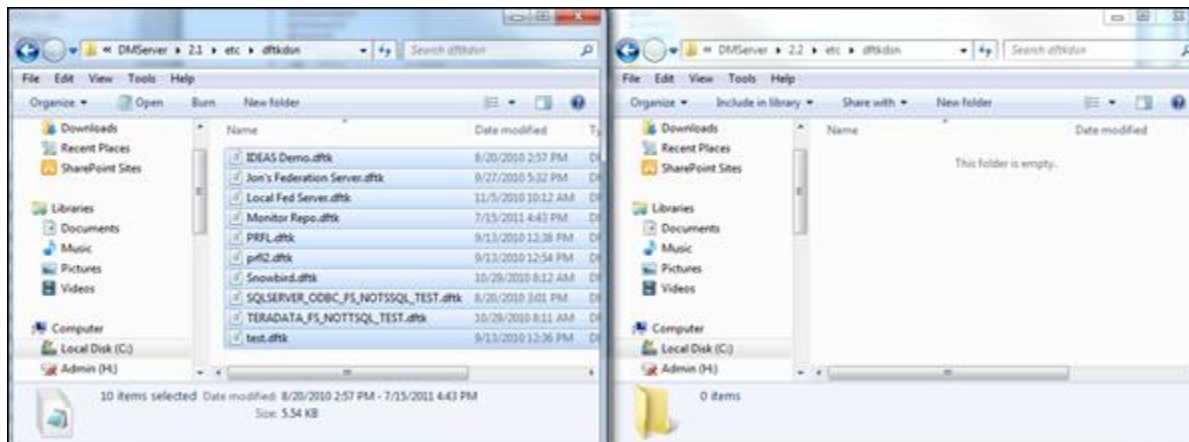


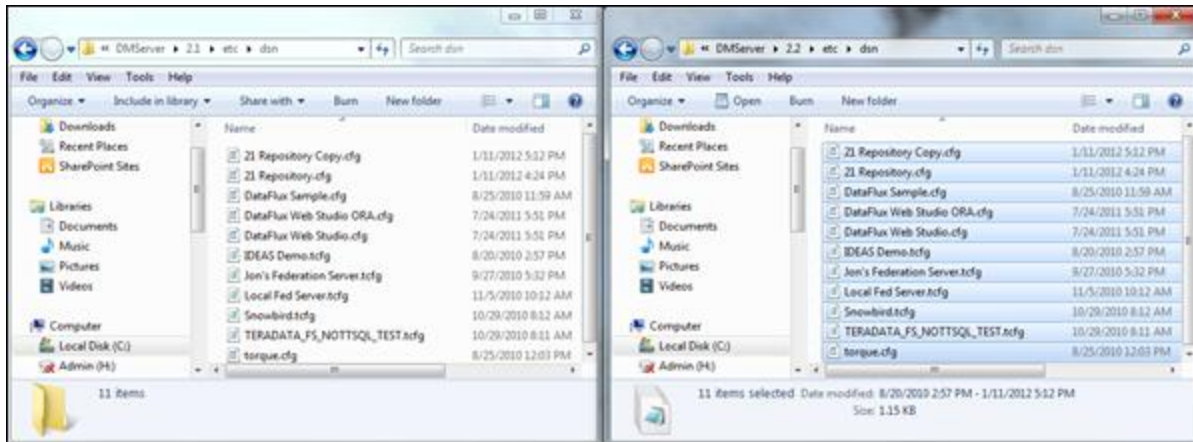


There is no way to distinguish which version is 32 bit or 64 bit, so you will need to keep it organized. In the above picture, the 32 bit is on the left and the 64 bit is on the right.

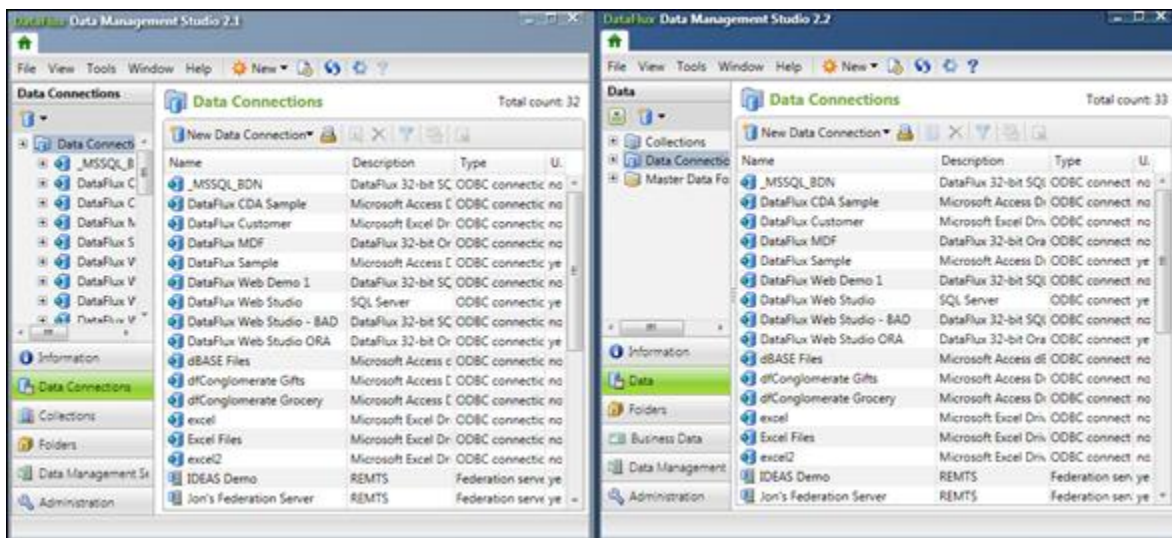
For any custom, Federation Server or localized Federation Server definitions that have been created you will need to move these over as well. The DF Tool utility can be used to accomplish this. It will copy definitions from [DM SERVER 2.1 INSTALL ROOT]\etc\dftkdsn to [DM SERVER 2.2 INSTALL ROOT]\etc\dftkdsn and credentials from [DM SERVER 2.1 INSTALL ROOT]\etc\dsn to [DM SERVER 2.2 INSTALL ROOT]\etc\dsn.

Before





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.



Data Connections - UNIX

If Data Management Server 2.2 is being installed on the same box as DM Server 2.1, then it is recommended that the ODBC connections already defined in the ODBC.ini file for DM Server 2.1 be recreated in Data Management Server 2.2'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 recreate the DSNs.

Once the connections are re-created, the next thing will be bringing over any saved credentials. On UNIX servers, if dfdbview was used to save the credentials, these will be found in the user's home directory under the .dfpower directory. If DM Server 2.2 is being installed under the same user ID as the 2.1 DM Server, DM Server 2.2 will use 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.

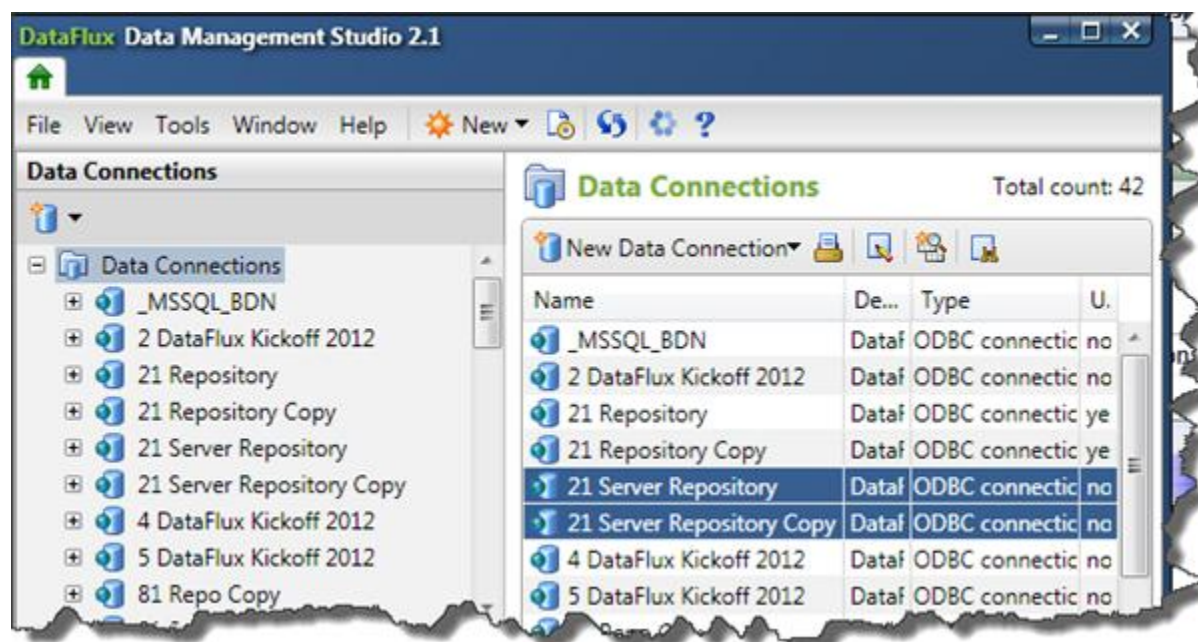
One other location to look for saved credentials is in [DM_Server_21_Root]/etc/dsn. Anything in this directory should be copied over to [DM_Server_22_Root]/etc/dsn.

Last but not least, any SAS, Federation Server or custom connections in [DM_Server_21_Root]/etc/dftkdsn need to be copied to [DM_Server_22_Root]/etc/dftkdsn.

Repositories

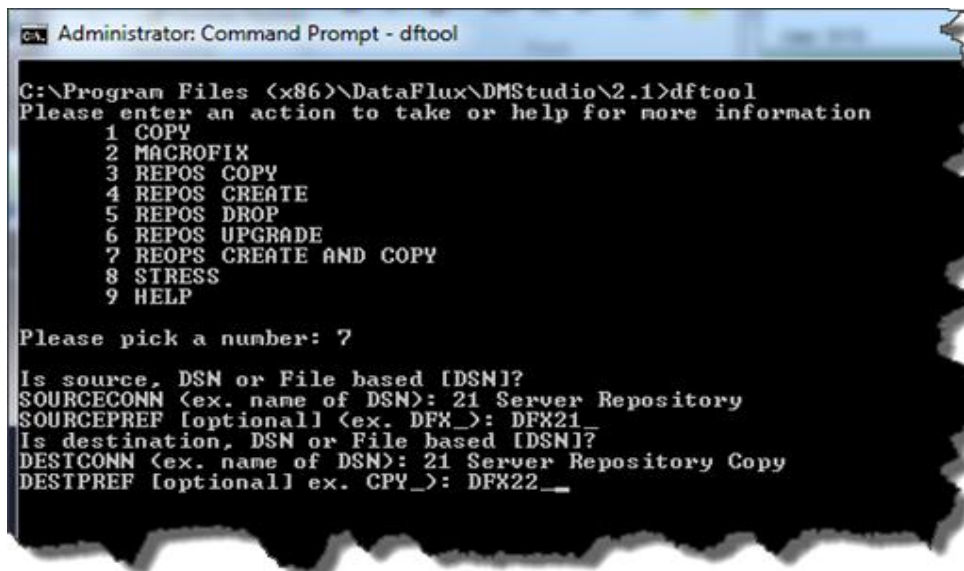
Here we will upgrade the data storage portion of a DM Server repository. If DM Server 2.1 is using a database for its data storage, one must have the DSN configured and know the prefix used if any. If the DSN and or prefix are not known, look in the *.rcf file that is located in the [DM_Server_22_root]/etc/repositories directory. First, we will confirm that we have our two connections in DM Studio 2.1:

1. The first for DM Server 2.1's current repository
2. The second which will host the copy of the repository which will be upgraded.



In DM Studio 2.1, save the credentials for both.

Open up a command prompt, navigate to DM Studio 2.1 install root (ex. "C:\Program Files\DataFlux\DMStudio\2.1") and run the dfTool Utility to create the repository in the "21 Server Repository Copy" and then to copy over the contents from "21 Server Repository".



```
Administrator: Command Prompt - dftool

C:\Program Files (x86)\DataFlux\DMStudio\2.1>dftool
Please enter an action to take or help for more information
 1 COPY
 2 MACROFIX
 3 REPOS COPY
 4 REPOS CREATE
 5 REPOS DROP
 6 REPOS UPGRADE
 7 REPOS CREATE AND COPY
 8 STRESS
 9 HELP

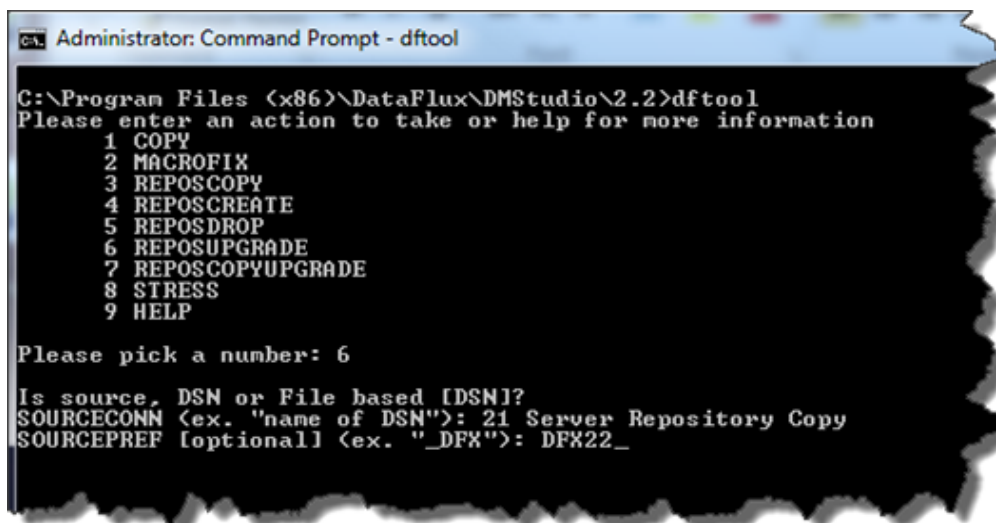
Please pick a number: 7

Is source, DSN or File based [DSN]?
SOURCECONN (ex. name of DSN): 21 Server Repository
SOURCEPREF [optional] (ex. DFX_): DFX21_
Is destination, DSN or File based [DSN]?
DESTCONN (ex. name of DSN): 21 Server Repository Copy
DESTPREF [optional] ex. CPY_): DFX22_
```

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 is used, this would be another way to quickly identify that this is not an original repository.

Now that there is a copy, we need to upgrade it so that DM Server 2.2 can use it. If the DSN does not exist on the machine that has DM Studio, go ahead and create it. Once it is created, make sure to save the user credentials.

From the command prompt, change directory to DM Studio 2.2 install root (ex. "C:\Program Files\DataFlux\DMStudio\2.2") and run the dftool Utility to upgrade the repository in "21 Server Repository Copy".



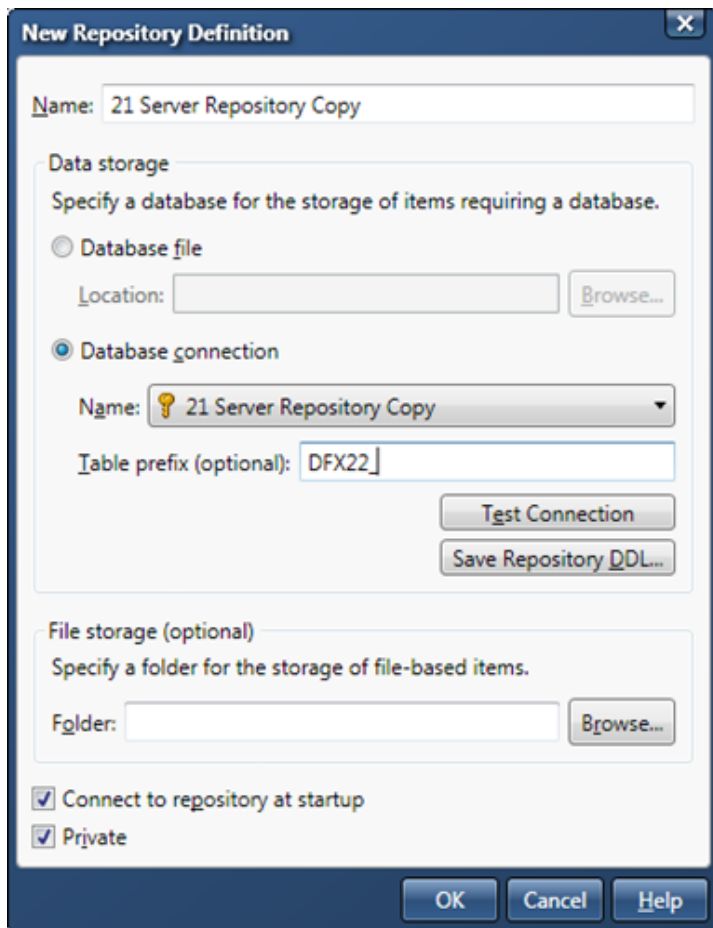
```
Administrator: Command Prompt - dftool

C:\Program Files (x86)\DataFlux\DMStudio\2.2>dftool
Please enter an action to take or help for more information
 1 COPY
 2 MACROFIX
 3 REPOSCOPY
 4 REPOSCREATE
 5 REPOSDROP
 6 REPOSUPGRADE
 7 REPOSCOPYUPGRADE
 8 STRESS
 9 HELP

Please pick a number: 6

Is source, DSN or File based [DSN]?
SOURCECONN (ex. "name of DSN"): 21 Server Repository Copy
SOURCEPREF [optional] (ex. "_DFX"): DFX22_
```

To confirm that the repository will work with DMP 2.2, register the repository in DM Studio 2.2.



Also notice that the "Folder" configuration is left blank in the DM Studio configuration. This is done on purpose as will be shown in a little bit. When we save the configuration DM Studio it should go ahead and register with no further prompts. Connect to the repository and there will be an indication in the repository screen that it connected



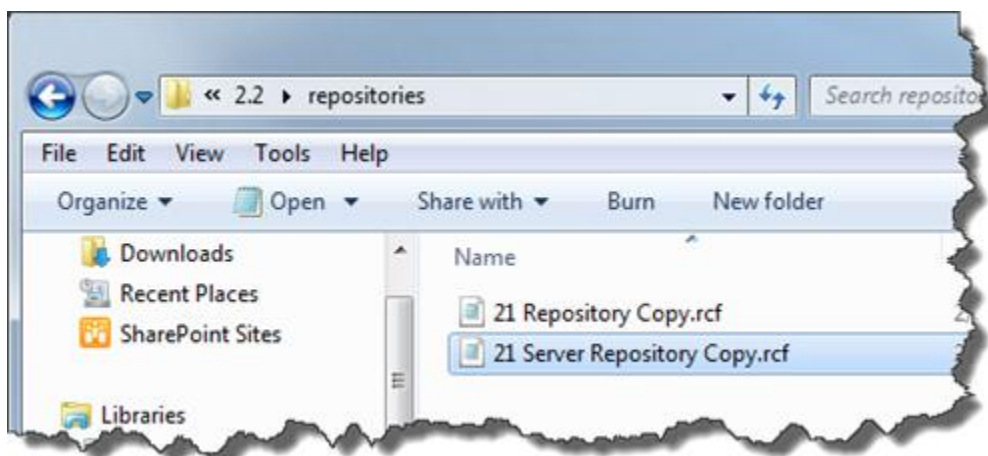
Now that we have created the repository, there are two things we need to do

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

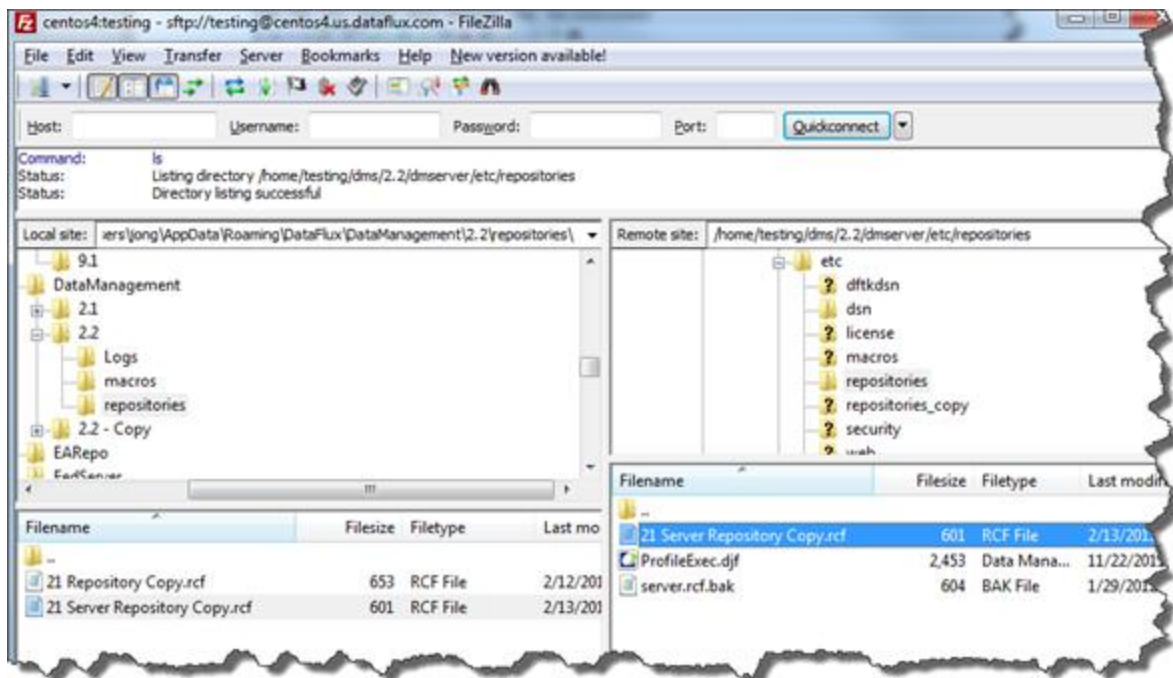
Regardless if the server is UNIX or Windows based, the repository configuration file (.rcf) is saved in the [DM_Server_root]/etc/repositories directory. The Studio RCF file needs to be copied to this location. Since DM Server comes with a default RCF file, we will rename this first.

```
testing@CENTOS4:~/dms/2.2/dmserver
[testing@CENTOS4 dmserver]$ mv etc/repositories/server.rcf etc/repositories/server.rcf.bak
[testing@CENTOS4 dmserver]$ ls -l etc/repositories/
total 8
-rw-r--r--. 1 testing testing 2453 Nov 22 06:11 ProfileExec.djf
-rw-rw-r--. 1 testing testing 604 Jan 29 00:43 server.rcf.bak
[testing@CENTOS4 dmserver]$
```

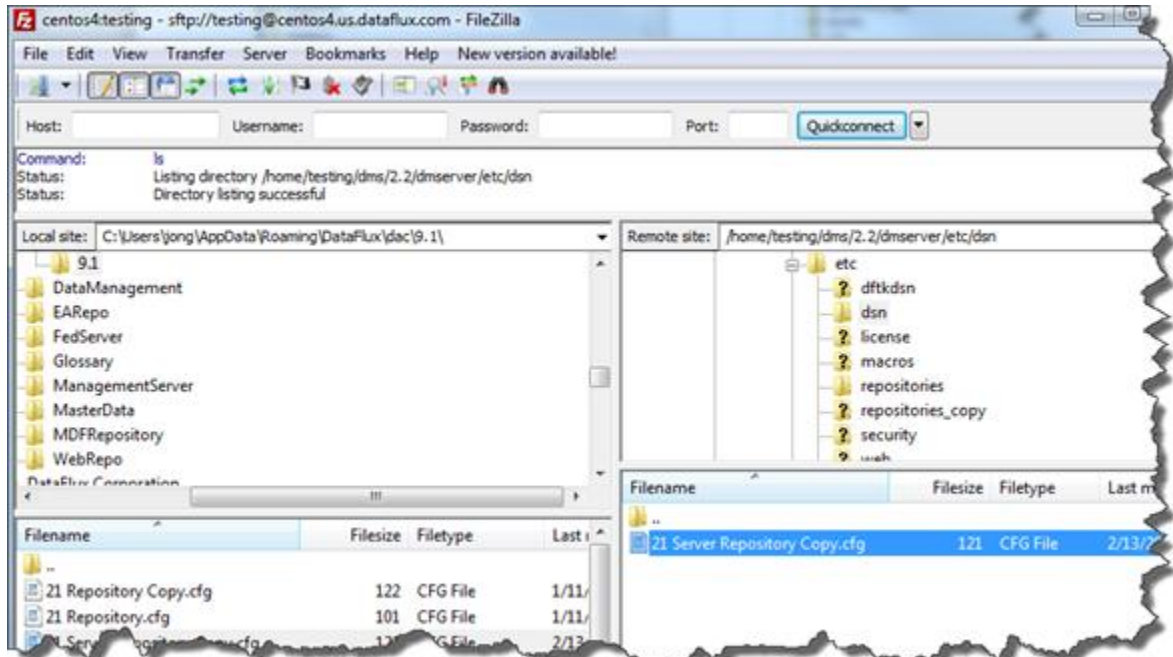
Now find the Studio RCF file and copy this over to the Server. If you followed the screenshots, the repository was configured as being private. This means that the RCF file can be found by going to %APPDATA%\DataFlux\DataManagement\2.2\repositories



If it is not in this location, then look in [DM_Studio_root]\etc\repositories. Copy the "21 Server Repository Copy.rcf" file to the server. In the following FileZilla is used to SFTP the file over to the Server.



Since we have the saved credentials on our DM Studio box, we will go ahead and copy these over to the Server using FileZilla as well. The saved credentials are in the %APPDATA%\DataFlux\dac\9.1 directory and we will copy them to the [DM_Server_root]/etc/dsn directory.



The last thing is to create the DSN on the server. The DSN name that we need to create is defined in the RCF file. From the Server host we can view the file to make sure we create the correct DSN name.

```
testing@CENTOS4:~/dms/2.2/dmserver

[testing@CENTOS4 dmserver]$ cat etc/repositories/21\ Server\ Repository\ Copy.rc
f
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<VaultRepositoryInfo IsActive="false" Name="21 Server Repository Copy" RepositoryType="Vault">

  <VaultPath></VaultPath>

  <UnifiedRepositoryConnect>DSN=21 Server Repository Copy;DFX TYPE=ODBC</UnifiedRepositoryConnect>

  <UnifiedRepositoryPrefix>DFX22_</UnifiedRepositoryPrefix>

  <VaultLogFile></VaultLogFile>

  <UnifiedRepositoryName>21 Server Repository Copy</UnifiedRepositoryName>

  <UnifiedRepositoryType>ODBC</UnifiedRepositoryType>

  <UnifiedRepositoryVersion></UnifiedRepositoryVersion>

</VaultRepositoryInfo>
[testing@CENTOS4 dmserver]$
```

Once we have that, we can create the DSN (assuming that we know what data source this should be connecting to)

```
testing@CENTOS4:~/dms/2.2/dmserver

[testing@CENTOS4 dmserver]$ ./bin/dfdbconf
DataFlux ODBC Configuration Tool

ODBC INI: /home/testing/dms/2.2/dmserver/etc/odbc.ini
template: /home/testing/dms/2.2/dmserver/./etc/odbc.ini.template

Please select an action to perform.

A. Add a data source.
D. Delete a data source.
X. Exit.

Action:
```

```
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]$
```

The file storage location of the Data Management Server will always be [DMSERVER_22_INSTALL_ROOT]/var. Looking at the contents of the 2.1 Server

copy all contents of the following folders from 2.1 to 2.2:

- batch_jobs
- data_services
- process_services

One of the new concepts introduced in Data Management Platform 2.2 is the declaration of inputs and outputs on data services. This was not needed with the Integration Server. If this same functionality is desired, then the following will need to be set in the service.cfg file found in [DMSERVER_INSTALL_ROOT]/etc/:

```
DATASVC/IGNORE_DECLARED_VARS = YES
```

In setting this value, data services will run like they did in Data Management Server 2.1.

Data and Process Jobs

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 Data Management Server 2.1, contact your account representative to get the correct version that is compatible with Data Management Platform 2.2.

Security

Handled with the copying of jobs from the 2.1 var directory to the 2.2 var directory.

Command Line Execution

The Data Management Server 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 Data Management Server 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 will allow one to Authenticate. 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

```

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

```

and then passed in on the command line with the following options

```

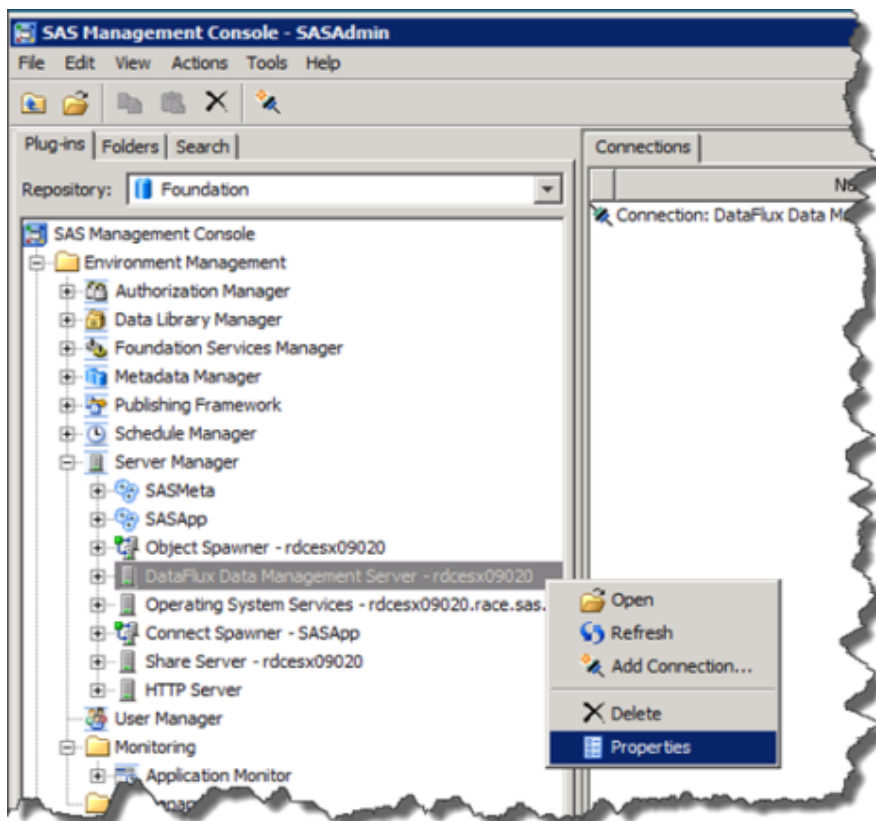
> bin/dmpexec -a -c "dmpexec_auth.cfg" -l "dmpJob.log" -j
"path/to/architect.ddf"

```

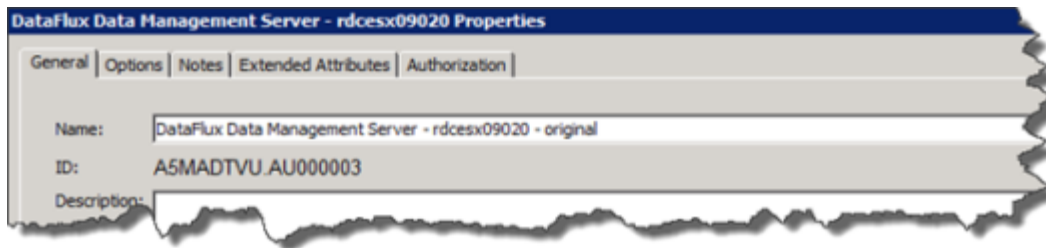
SAS Management Console

When moving from SAS 9.2 to SAS 9.3, a DM Server 2.1 entry is created in meta-data. This entry needs to be renamed and a DM Server 2.2 entry needs to be created with the same name. This will allow DI Studio jobs to continue to run without having to be updated to handle the change in servers.

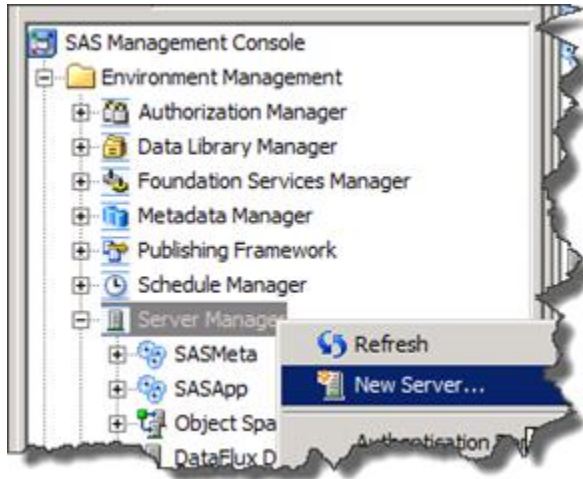
Open up SAS Management Console and rename the existing DM Server entry.



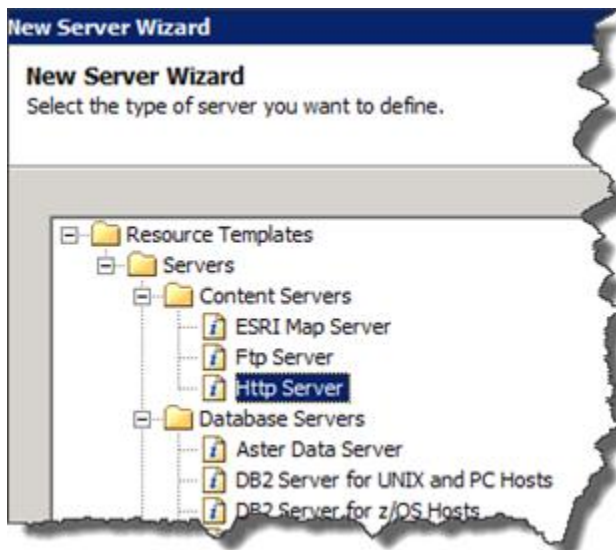
For the example, we will append " - original" to the end of the name.



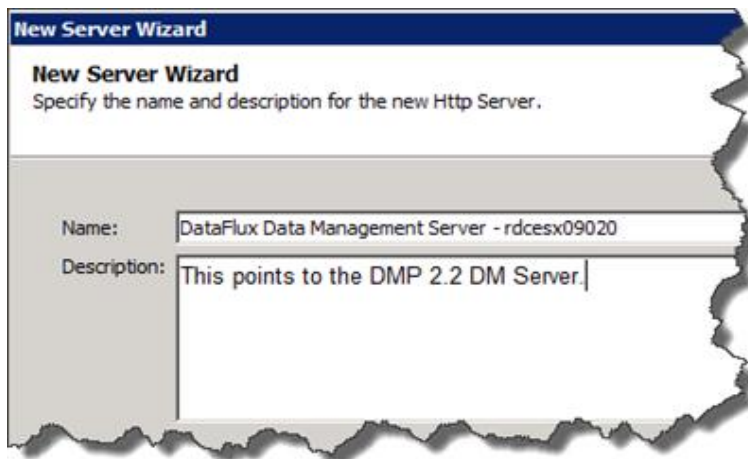
Now we will create a new server entry using the same name from the original Server entry.



In the next dialog select "Http Server" and select "Next"



Give it the same name that was used for the original entry. In this example, name = "DataFlux Data Management Server - rdcesx09020".



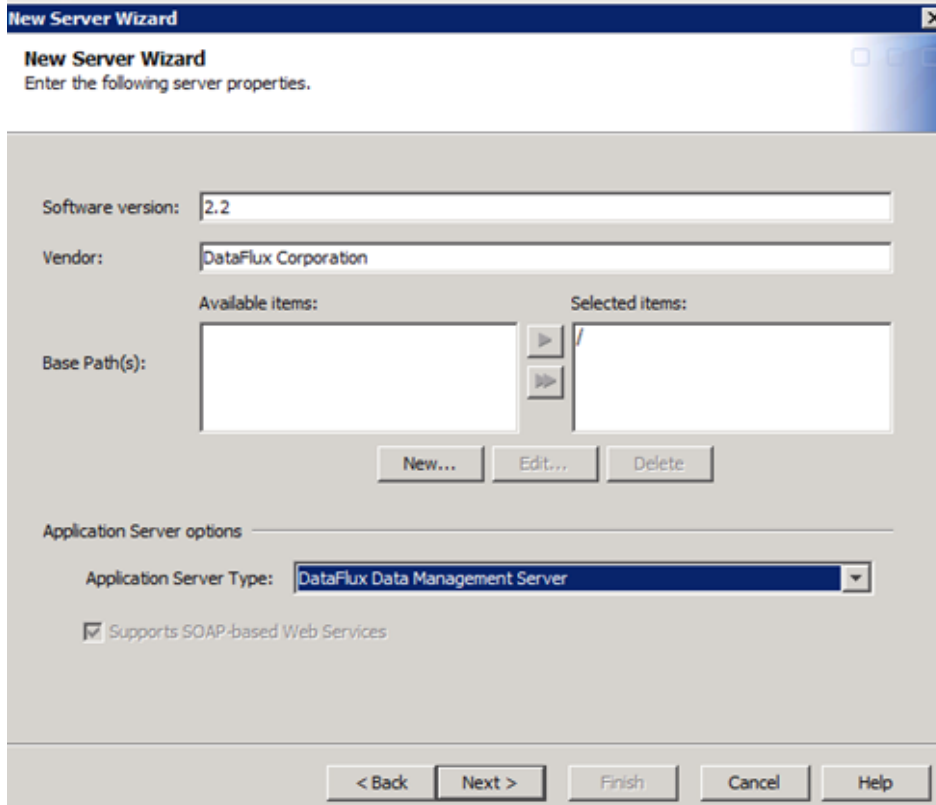
In the next dialog, make sure the following information is entered:

- Software Version = 2.2
- Vendor = DataFlux Corporation
- Base Path(s) = /

Select the "New" button

In the resulting dialog select "OK"

- Application Server Type = DataFlux Data Management Server



In the next dialog 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 DM Server is residing]
- Port Number: [This is the dmserver/soap/port from the dmserver.cfg file]
- Proxy URL: Leave blank

New Server Wizard
Enter the connection properties.

Authentication domain: DefaultAuth

Authentication type: User/Password

Application protocol: http

Host name: rdcesx09020.race.sas.com

Port details

Port number: 1900

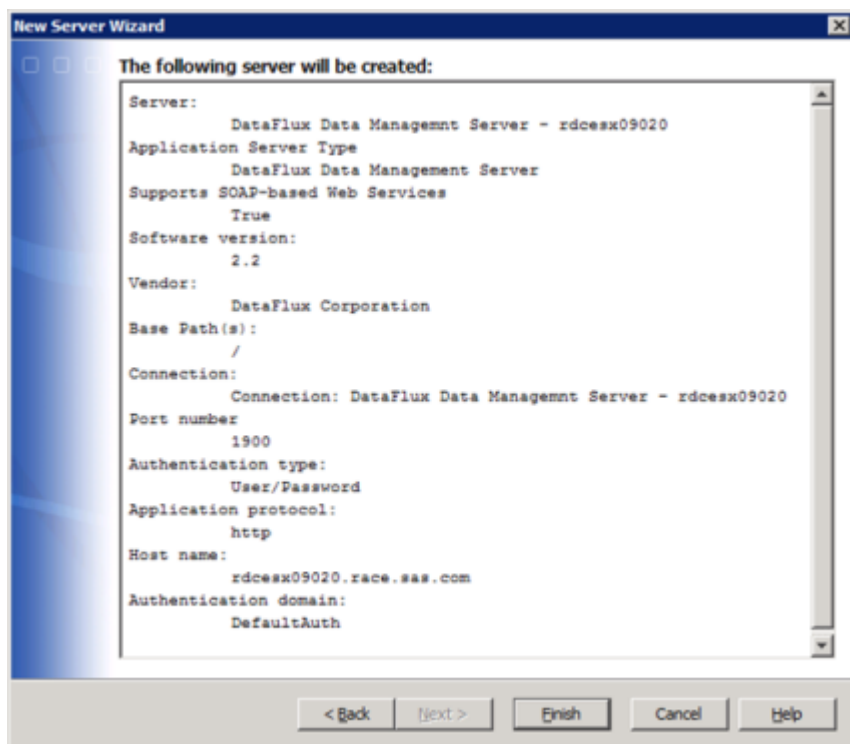
Proxy URL

Optional proxy URL to access this Http server.

Proxy URL:

< Back Next > Finish Cancel Help

Clicking next will take you to the review screen.



Before selecting finish, make sure of the following:

1. The name is the same as the one that was originally there.
2. The host reflects the location of where the DM Server resides
3. The port number matches what is in the dmserver.cfg file.

Once these are double checked, click finish and the SMC changes are complete.

SAS Data Quality Server

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



Note: Data quality functions may produce different results than Data Management Platform v. 2.2 because the DQ Server engine is based on Data Management Platform v. 2.1. Please be aware if doing actions in DQ Server and Data Management Studio/Server and comparing results.

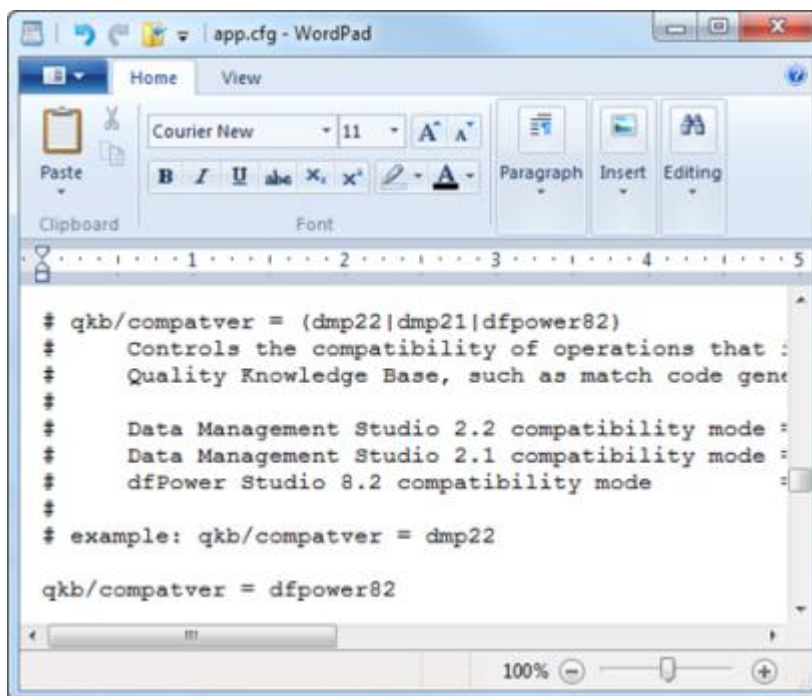
If trying to call a single page dfPower real-time services as part of a Data Management Platform deployment, then the following needs to be added to the [DM Server install root]/etc/service.cfg file.

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

Quality Knowledge Base Migration

There is no way to use an equivalent dfPower Studio version 8.1 QKB engine in Data Management Studio v. 2.2. The closest that can be offered is the dfPower v. 8.2 engine. dfPower v. 8.1 and v. 8.2 QKB engines were deemed to be 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 will match 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 Data Management Studio can be set to use the v. 8.2 QKB engine by adding the following to the app.cfg file:

```
QKB/COMPATVER = dfpower82
```



Technical Support

This section addresses questions and issues related to migrating DataFlux products.

- [Troubleshooting](#)

Troubleshooting

Problems running a dfPower real time service

If you see this Run Job error message,

The server was unable to run the job; the error message was "Failed To Set Job Input".

or 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 you tried to pass values into.

Scenarios:

- Trying to run Architect Job that contains macros
- Job with macros was upgraded, but missing input/output variables required for DM style jobs

Resolution:

Add this configuration setting to the service.cfg file:

```
DATASVC/IGNORE_DECLARED_VARS = yes
```