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What’s New in the DataFlux Data Management Studio Installation and Configuration Guide

Overview

The September 2019 update for DataFlux Data Management Studio 2.8 provides the following performance and stability enhancements, including updates to some Flash-based features impacted by Adobe’s end of support for Flash:

• new Monitor and Dashboard Governance Report
• new Reference Data Manager application
• change to configuration option

New Monitor and Dashboard Governance Report

DataFlux Data Management Studio enables you to create business rules to monitor the quality of output from data jobs. One way to monitor these jobs is to use the Dashboard Viewer and Monitor Viewer in DataFlux Web Studio. If you are concerned about the end-of-life for Flash, you can use the new Monitor and Dashboard Governance Report available on a SAS LASR Analytic Server.

New Reference Data Manager Application

DataFlux Reference Data Manager is a separately licensed module in DataFlux Web Studio. It enables you to create collections of reference data that are referred to as domains. If you are concerned about the end-of-life for Flash, you can use a new application, SAS Reference Data Manager, to create domains. The new domains are stored in the SAS mid-tier, not in a DataFlux repository.

Change to Configuration Option

The QKB/SURFACEALL option definition was updated because a SURFACE flag can be checked or unchecked in Customize for any definition, not just parse definitions. The
SURFACEALL option applies only to definitions for which the flag is not checked. If the flag is checked, it is already available for display and reference.
Accessibility Features of DataFlux Data Management Studio

Overview

For information about the accessibility of DataFlux Data Management Studio, see the DataFlux Data Management Studio Users Guide.

For information about the accessibility of any of the products mentioned in this document, see the documentation for that product.

DataFlux Data Management Studio has not been tested for compliance with U.S. Section 508 standards and W3C web content accessibility guidelines. If you have specific questions about the accessibility of SAS products, contact accessibility@sas.com or SAS Technical Support.

Documentation Format

If you need this document in an alternative digital format, contact accessibility@sas.com.
Chapter 1
Installing DataFlux Data Management Studio

Installing the Software for the First Time

DataFlux Data Management Studio is available through SAS delivery channels. For information about installing this product, see your SAS Software Order E-mail (SOE).

The default installation path under Windows is: \SASHome\<product_instance_name>\<version>.

The default installation path under UNIX is: \SASHome/<product_instance_name>/<version>.

For configuration instructions, see Chapter 2, “Configuring DataFlux Data Management Studio,” on page 5. To install add-on products, see Chapter 3, “Installing or Configuring Related Products,” on page 27.

Upgrading Existing Installations of the Software

Migrating to SAS 9.3

The following table summarizes the upgrade paths when the target system is SAS 9.3.
<table>
<thead>
<tr>
<th>Existing Version</th>
<th>Upgrade Version</th>
<th>Migration Instructions</th>
</tr>
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<tr>
<td>DataFlux Data Management Studio or DataFlux Data Management Server (all versions)</td>
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<td>The SAS Deployment Wizard installs the products into SASHome on the target machine. Any metadata in the SAS Metadata Repository is updated. Any configuration files or DataFlux jobs that are in the source environment must be migrated manually to the target environment. See the DataFlux Migration Guide for instructions about migrating this content.</td>
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<td>DataFlux Federation Server 2.1</td>
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<td>Migration is manual. See the administration documentation for DataFlux Federation Server 3.1.</td>
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**Migrating to SAS 9.4**

The following table summarizes the upgrade paths when the target system is SAS 9.4.

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<td>The SAS Deployment Wizard installs the products into SASHome on the target machine. The metadata in the SAS Metadata Repository is updated. Any configuration files or DataFlux jobs that are in the source environment must be migrated manually to the target environment. See the DataFlux Migration Guide for instructions about migrating this content.</td>
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<tr>
<td>---------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>Any SAS 9.3 installation of DataFlux Data Management Studio and DataFlux Data Management Server (all versions)</td>
<td>SAS 9.4 offerings that include DataFlux Data Management Studio and DataFlux Data Management Server (all versions)</td>
<td>The SAS Deployment Wizard installs the products into SASHome on the target machine. Any metadata in the SAS Metadata Repository is updated. Any configuration files or DataFlux jobs that are in the source environment must be migrated manually to the target environment. See the DataFlux Migration Guide for instructions about migrating this content.</td>
</tr>
<tr>
<td>DataFlux Federation Server 3.*</td>
<td>SAS Federation Server (all versions)</td>
<td>Migration is manual. See the administration documentation for SAS Federation Server 3.2.</td>
</tr>
<tr>
<td>SAS Federation Server 4.1</td>
<td>SAS Federation Server 4.2</td>
<td>Migration is automated. Use the SAS 9.4 Deployment Wizard to install the SAS offering that includes 4.2.</td>
</tr>
<tr>
<td>SAS Federation Server 4.2</td>
<td>SAS Federation Server 4.2</td>
<td>Migration is automated. Use the SAS 9.4 Deployment Wizard to install the SAS offering that includes 4.2.</td>
</tr>
<tr>
<td>DataFlux Authentication Server 3.*</td>
<td>DataFlux Authentication Server (all versions)</td>
<td>Migration is manual. See the administration documentation for DataFlux Authentication Server 3.2.</td>
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<td>DataFlux Authentication Server 4.1</td>
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<td>Migration is automated. Use the SAS 9.4 Deployment Wizard to install the SAS offering that includes 4.1.</td>
</tr>
</tbody>
</table>
### System Requirements

SAS Data Management Studio is licensed as part of SAS Data Management offerings, which include SAS Data Quality Desktop, SAS MDM Advanced, and SAS Financial Crimes Monitor. You can review the system requirements for your product at: [http://support.sas.com/installcenter](http://support.sas.com/installcenter).

Select **SAS 9.4** under the Current Releases section to open the search window for the install center documentation. Enter **Data Management Studio** into the **Search only SAS 9.4 Install Center Documentation** text box. A results page appears with links to the system requirements by offering.

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<td>SAS 9.4 offerings that include DataFlux Web Studio Server (all versions)</td>
<td>The SAS Deployment Wizard installs the products into SASHome on the target machine. Prior to Data Management Platform 2.7, there was no metadata in the SAS Metadata Repository. With the 2.7 release, users must manually register the DataFlux Web Studio Server in the SAS Metadata Repository. This data is automatically migrated but should be reviewed by the SAS administrator. Any configuration files or jobs that are in the source environment must be migrated manually to the target environment. See the <a href="#">DataFlux Migration Guide</a> for instructions about migrating this content.</td>
</tr>
</tbody>
</table>

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System Requirements
Chapter 2
Configuring DataFlux Data Management Studio

About Configuration Files

When the software starts, it determines which configuration options are in effect by reading a series of configuration files, by looking in the environment, and by reading the command line. If two settings of the same name exist in different configuration settings, then the order in which the settings are read determines which value is used. The last value read is used as the configuration setting.

DataFlux Data Management Studio reads configuration settings in this order:

1. The app.cfg file in the etc folder where the software is installed.

2. The app.cfg file in a user folder, such as drive:\Documents and Settings \USERNAME\Application Data\DataFlux\DataManagement\VERSION.

3. The application-specific configuration files in the etc folder, such as ui.cfg or dmserver.cfg.

4. The application-specific configuration files in a user folder.
5. The macros folder in the etc folder. The default path to the macros folder can be overridden with BASE/MACROS_PATH setting in the preceding configuration files.

6. The macros folder in a user folder.

7. The environment variables.

8. The command-line options if applicable.

---

**DataFlux Folder Permissions for Users**

Users must be able to access files that are associated with DataFlux Data Management Studio. At some sites, an administrator might have to manually set the following permissions for individual users.

*Table 2.1 Recommended File System Permissions for DataFlux Data Management Studio Users*

<table>
<thead>
<tr>
<th>Folders</th>
<th>Recommended Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Files in the DataFlux folder in a user’s private storage area, under Microsoft Windows. Example path: C:\Users[user_ID]\DataFlux</td>
<td>Full control for all files in this private folder.</td>
</tr>
<tr>
<td>DMSTUDIO_HOME[instance]\etc</td>
<td>Full control for all files and folders in the etc folder of the DataFlux Data Management Studio installation directory.</td>
</tr>
<tr>
<td>Any folder specified in a DataFlux repository definition.</td>
<td>Full control for all files and folders in any Data storage folder and File storage folder specified in a DataFlux repository definition. For more information, see “Understanding Repository Definitions” in the DataFlux Data Management Studio User Guide.</td>
</tr>
</tbody>
</table>

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**Configuration Options**

*About Options*

Except as noted, the following configuration options can be set for both DataFlux Data Management Studio and DataFlux Data Management Server. These options are typically set in the app.cfg file.
Note: When editing a configuration file, save it as an ASCII or UTF-8 file. If it is saved as a Unicode file, the software can fail to start and will log this error message: "Read failed due to missing file or possibly invalid content in 'c:\path\file.cfg'."

**Base or General Application Options**

**DEFAULT_UMASK**
(Optional) On DataFlux Data Management UNIX server hosts, this specifies the default umask value to use when creating output files, such as the output files from jobs. The umask value must be numeric. If not set, the shell's umask value is used.
Example: default_umask = 002.

**ODBC_INI**
(Optional) For DataFlux Data Management UNIX server hosts, this overrides the location of the odbc.ini file.

**BASE/APP_CONTAINER_DOMAIN**
(Optional) This identifies the authentication domain expected by the application container services. If it is not specified, the DefaultAuth value is used.

**BASE/APP_CONTAINER_LOC**
(Optional) This identifies where to locate the application container services. In most cases this is not required. If it is required, the value is typically an HTTP URI. In addition, app.cfg should always set this option to point to the metadata server (IOM://<host><port>).

**BASE/APP_VER**
(Optional) The application version number.

**BASE/AUTH_DEFAULT_DOMAIN**
(Optional) This identifies the default for resolving the identity domain.

In a metadata configuration, it is possible for the authenticated credentials to resolve the identity of a person who has multiple logins that use the same user ID. When more than one login matches the resolved user ID, the authentication domain for the presented credentials is determined in the following order:

- **BASE/AUTH_DEFAULT_DOMAIN** — If the value of this option is specified and the specified value matches the authentication domain of one of the logins, then this is used. If this option is not specified, and if the specified value is not an authentication domain for one of the logins, the next rule is executed.

- **DefaultAuth** — If DefaultAuth matches the domain of one of the logins, the presented credentials are associated with the DefaultAuth domain. If no match is found, continue to the next rule.

- **The first login** — The authentication domain of the first login containing a user ID that matches the presented credentials is used.

**BASE/AUTH_SEARCH_DOMAIN**
(Optional) This specifies whether to search through all domain credentials. When set to true, the set of credentials associated with the current domain is searched to find a set that is usable by the given authenticated user. If multiple credentials are found, the first complete set is used.

**BASE/AUTH_SERVER_LOC**
(Optional) This specifies the location of the authenticating server and is typically specified during installation in the app.cfg file. If an authenticating server connection is attempted, but this option is not set, localhost:21030 is used as the host and port.
The basic format of the authentication server IOM URI is `iom://<host>:<port>`, where `<host>` is the name of the computer executing the authentication server and `<port>` is the port to contact the authentication server. If the authenticating server is a DataFlux Authentication Server, then the port should be specified as 21030 unless the default server has been changed.

If the authenticating server is a SAS Metadata Server, then the port should be 8561 unless the default server has been changed.

If your SAS Metadata Server is installed as a cluster of multiple hosts, then this option points to the metadata cluster profile. The pathname used by the option is the physical location that is recognized by the operating environment. The file must be accessible from the current process. The following example illustrates a typical value:

```
BASE/AUTH_SERVER_LOC=c:\SAS\Config\Lev1\metadataConfig.xml
```

The example includes the default name and location of the metadata cluster profile.

For information about valid encodings, see the *SAS National Language Support (NLS): Reference Guide*.

**BASE/AUTH_SERVER_PASS**

(Optional) This identifies the password to present when connecting to the authenticating server as defined by `BASE/AUTH_SERVER_LOC`.

Typically, the `BASE/AUTH_SERVER_LOC` is specified during installation in the app.cfg file. Separating the user name (`BASE/AUTH_SERVER_USER`) and password (`BASE/AUTH_SERVER_PASS`) from the authenticating server location (`BASE/AUTH_SERVER_LOC`) enables you to run the batch command (`dmpexec`) with the authenticate option `-a` with individual credentials. For more information see “Running Jobs from the Command Line” in the *DataFlux Data Management Studio: User’s Guide*.

**BASE/AUTH_SERVER_REPOSNAME**

(Optional) This identifies the name of the authenticating server metadata repository containing information to be searched when items are looked up in the metadata.

**BASE/AUTH_SERVER_SSPI**

(Optional) This identifies support for Security Support Provider Interface (SSPI). It enables support for single-sign on (SSO) to the SAS Metadata Server. The default is NO (no support for single-sign on). Specify `YES` to enable single-sign-on connections to the SAS Metadata Server from DataFlux Data Management Studio. Add this option to a user's app.cfg file or the default app.cfg file for DataFlux Data Management Studio. Do not set this option in the configuration files for DataFlux Data Management Servers.

**BASE/AUTH_SERVER_USER**

(Optional) This identifies the user name to present when connecting to the authenticating server as defined by `BASE/AUTH_SERVER_LOC`.

Typically, the `BASE/AUTH_SERVER_LOC` is specified during installation in the app.cfg file. Separating the user name (`BASE/AUTH_SERVER_USER`) and password (`BASE/AUTH_SERVER_PASS`) from the authenticating server location (`BASE/AUTH_SERVER_LOC`) enables you to run the batch command (`dmpexec`) with the authenticate option `-a` with individual credentials. For more information see “Running Jobs from the Command Line” in the *DataFlux Data Management Studio: User’s Guide*.

**BASE/DMSTUDIO**

(Optional) This indicates whether to use the dmstudio process. If this option is set to `true` (value of 1), it indicates that the application is using the dmstudio process (not
processes started by the application, like batch.cfg, for example). The user should not adjust or override this value.

**BASE/DATA_DATE_FORMAT**
(Optional) Specifies how to format dates. Possible values, if specified, are iso8601 and iso8601_no_milli. The later does not include the millisecond portion of the ISO8601 standard.

**BASE/EMAILCMD**
(Required) This option specifies the command that is used to send email. The command can include %T and %B where %T is replaced with the recipient and %B is a file containing the body of the message. Monitor event, as well as the architect node, use this option.

**BASE/EXE_PATH**
(Optional) This is the path containing executables. The user should never need to set this.

**BASE/FTPGETCMD**
(Required) This is the command used for FTP Get Functionality. This should default in the install, as follows:

- %U: Replace with user name.
- %P: Replace with password.
- %S: Replace with server.
- %T: Replace with local directory.
- %F: Replace with Files to download, multiple separated by spaces.
- %L: Replace with the log file to pipe the output.

**BASE/FTPPUTCMD**
(Required) This specifies the command used for FTP Put Functionality. This should default in the install the same as BASE/FTPGETCMD.

**BASE/HIGH_PRECISION_TIMER**
(Optional) This is a DAC log setting to allow higher precision timing at the expense of forcing all threads to CPU core 1. This is available only on Windows and can decrease multithreaded performance.

**BASE/JOB_LOG_ENCODING**
(Optional) This specifies the encoding for the job log on a DataFlux Data Management Server.

By default, the log is written in the encoding associated with the locale of the process for the executed job. For English-speaking organizations, this might be LATIN-1 or UTF-8. If a log line contains characters that cannot be represented in the encoding, the log line is not written to the log file. This option enables you to assign the encoding of the job log.

*Note:* This option must be set on the DataFlux Data Management Server where jobs are executed. It has no effect on DataFlux Data Management Studio job logs.

**BASE/LIBRARY_PATH**
(Optional) This is the path in which the Java JAR dependencies reside. The path is automatically determined (DFBCO_EXE_PATH/lib) by start-up code, so you should not need this setting in a configuration file.
BASE/LOGCONFIG_PATH
(Optional) This is the full path to the log configuration file. If set, this must be set in the application executable (dis.cfg, and so on) configuration file, not the app.cfg, or macros.cfg files. If it is not set, it defaults to logging.xml in the etc directory.

BASE/LOGEXCEPTIONS
(Optional) This is used for Exception logging and defaults to off. This must be set before starting the application of interest, because this setting is read only at start-up.

Set this option to either 1 or a combination of letters where: M = do not show module info, V = turn verbose on, U = install the Unhandled Exception Filter, C = install the continue Exception Filter, and f = do not install the first chance exception filter. Setting it to 1 shows all the information.

Note: This only works from DataFlux Data Management Studio, not DataFlux Data Management Server.

BASE/MACROS_PATH
(Optional) This is the path for system macros.cfg file. If not specified, this file is located in the etc subfolder of the installation folder.

BASE/MAINTAIN_GROUP
(Optional) This specifies whether to maintain the current execution group or job. When present in the configuration, the current process is queried to determine whether it is already in a group or job. If it is, the child processes stays in the existing group instead of being associated with a new group or job.

Note: If you use remote access software such as Citrix or Microsoft RemoteApps to run DataFlux Data Management Studio as a published application (not streamed), and jobs are failing due to a "CreateProcess() Access Denied" error, you should set the BASE/MAINTAIN_GROUP=YES option in the app.cfg file on the computer where the DataFlux Data Management Studio jobs are executed. If you do not set this option, the jobs will not execute.

BASE/MESSAGE_LOCALE
(Optional) This specifies which error message locale to use. If not specified, it is determined from the system locale.

BASE/MESSAGE_LEVEL
(Optional) This specifies the error level of messages. Possible values include 0 (or not specified) for normal messages or 1, which includes source file and line number in messages.

BASE/MESSAGE_PATH
(Optional) This specifies the path to the message directory. This setting is not needed in a configuration file because it is automatically determined by start-up code.

BASE/MONITOR_FREQUENCY
(Optional) Disabled by default, this enables the logging of job node statistics while a job is running. If this option is disabled (or its value is -1), then node statistics are logged only when the job has finished executing.

If you want to log node statistics while the job is running, specify the number of milliseconds that the software should wait between logging statistics. The higher the frequency, the more run-time details about node execution are logged in to the job’s log file. However, the additional collection and logging of information affects the job’s performance.

BASE/PLUGIN_PATH
(Optional) This is the path used by all subsystems to find plug-ins. This setting is not needed in a configuration file because it is automatically determined by start-up code.
BASE/PRIMARY_LICENSE
(Required) This is the primary licensing method. This needs to be set in the configuration file with a value of DATAFLUX or SAS.

BASE/PRIMARY_LICENSE_LOC
(Required) This is the server or file location for the primary licensing method.

BASE/REPOS_SYS_PATH
(Optional) This is the system path for repository configuration files and should be automatically determined by dfcurver.

BASE/REPOS_USER_PATH
(Optional) This is the user directory containing repository configuration files. It should be automatically determined by dfcurver.

BASE/REPOS_FILE_ROOT
(Optional) This overrides the root of the repository for URI lookups. If specified, this is used as the root for the repository when resolving the URI. The path in the URI is concatenated to this path to give the actual filename of a URI.

BASE/REPOS_EVENT_WAIT_QUERYMS
(Optional) This is the repository event processing wait time between processing queries. It specifies how frequently in milliseconds to query the repository for changes in the event table. This might need to be changed due to slow servers or IT issues. This is an overriding value and the default is used if no value is set by the user. A setting of -1 disables events from client.

BASE/REPOS_EVENT_CLEAN_TIMEMIN
(Optional) This sets the repository event processor that removes all events older than X minutes before start-up.

BASE/ROWSET_SIZE
(Optional) This sets the suggested RowSet size. If specified, the value is used to calculate the maximum number of rows each rowset collection should contain.

BASE/SECONDARY_LICENSE
(Required) This is the secondary licensing method. This must be set in the configuration file as either DATAFLUX or SAS.

BASE/SECONDARY_LICENSE_LOC
(Required) This is the location of the secondary license file or server and must be set in the configuration file.

BASE/SHARED_OUTPUT_PATH
(Optional) This is the directory in which to write shared output files. If set, some log and status files write files to this directory. If not set, it defaults to the value specified in "BASE/TEMP".

BASE/SORTBYTES
(Optional) This specifies the bytes to use when sorting.

BASE/SORTMERGES
(Optional) This specifies whether to merge when sorting.

BASE/SORTTEMP
(Optional) This specifies the temporary file location to be used during the sort. This can contain multiple directories separated by the appropriate host path separator character (':' on UNIX and ';' on Windows).

Note: If the SAS sort is being used, this option's value is not used.

BASE/SORTTHREADS
(Optional) This specifies the number of sort threads.
BASE/SORT_KEEP_VAR
(Optional) This specifies the short version of the global temporary record width conversion option. It enables a plug-in to locally set the BASE/SORT_KEEP_VAR global option.

When this Boolean value is set to true, the temporary data file honors the variable-width record indicator at temporary data file creation time. When the value is set to false (default), the temporary data file sort support converts a variable-width file to a fixed-width file, if the record does not contain any string fields, or if the lengths of the string fields in a record are within the overhead threshold necessary to sort variable-width records. Set to true to mimic behavior prior to the 2.4 release.

Note: This is a significantly advanced parameter that should rarely be manipulated.

BASE/TEMP
(Optional) This is the directory in which to write temporary files. If not specified, the value of the TEMP/TMP environment variable value is used.

BASE/TEXT_MINE_LITI_LANG_LOCATION
(Optional) This is a document extraction node option to specify the install location of Teragram text mining LITI Language file directory. This allows the user to find the LITI language files installed and present the user with the list of provided languages and LITI files for usage in contextual extraction. This option overwrites the default location of DFEXEC_HOME/share/liti.

BASE/TIME_BASE
(Optional) This specifies whether to use Greenwich Mean Time (GMT). Valid values are GMT and LOCAL, which is the default. If this is set to GMT, the current date returns in GMT instead of the localized time. This affects anything that uses the current date timestamp.

BASE/UPDATE_LEVEL
(Optional) This specifies the application update level. Defaults to 0. It can be used as a minor revision number.

BASE/USE_SASSORT
(Optional) This indicates whether the SAS sort is to be used. A Boolean is set to True to indicate that the SAS sort is to be used. If not specified or set to False, then the DataFlux Data Management sort is used.

BASE/USER_PATH
(Optional) In the GUI application, this represents the path where user configuration files are stored. This should be automatically determined by dfcurver.

**Data Access Component Logging Options**

DAC/DISABLE_SYSCAT_NUM
(Optional) This sets the enumeration of SYSCAT DSNs. When set to yes, 1, or true, this setting disables the listing of the SYSCAT type DSNs into DSNs that are on that server.

DAC/DFTK_DISABLE_CEDA
(Optional) This disables CEDA support. Any value turns it on.

DAC/DFTK_LOG_FILE
(Optional) This sets the filename for the DFTK logging.

DAC/DFTK_PROCESS
(Optional) This specifies whether to run DFTK out of process. The default is off. Any value turns it on.
DAC/DFTK_PROCESS_TKPATH
(Optional) This specifies the TKTS path for DFTK when it is running out of process. This path defaults to a core/sasext directory off of the executable directory.

DAC/DSN
(Optional) This specifies the DSN directory for TKTS. The path defaults to DFEXEC_HOME/etc/dftkdsn.

DAC/SAVEDCONNSYSTEM
(Optional) This specifies the location of the system’s saved connections. The path defaults to DFEXEC_HOME/etc/dsn.

DAC/SAVEDCONNUSER
(Optional) This specifies the location of the user’s-saved connections. The path defaults to the user's application directory/DataFlux/dac/9.0.

DAC/TKTSLOGFILE
(Optional) This sets the filename for the TKTS logging.

DAC/TKTSLOGFLAGS
(Optional) This sets the TKTS logging flags. Enter a string containing a semi-colon delimited list of items that can include the following:
- PARAM_DATA
- INCOL_DATA
- OUTCOL_DATA
- TIMESTAMP
- GETDATA
- PUTDATA
- APPEND
- NOFLUSH

Monitor Options

MONITOR/DUMP_JOB_DIR
(Optional) This specifies a directory to store temporary jobs created by the business rule monitor so that they can be debugged. By default, this option is not set and the monitor does not store temporary jobs on disk.

MONITOR/BULK_ROW_SIZE
(Optional) This specifies the size of the bulk packet. The default value is 1000. This affects row-logging events, as well as historic custom and standard metrics. This value can be changed to enhance the performance of jobs that monitor business rules when those jobs include row-logging events.

Profile Options

PROF/DEBUG_MODE
(Optional) This sets the value for the frequency distribution (FRED) engine debug mode. Possible values include 0 (not debug mode) or 1 (debug mode). The default is 0.
PROF/LOCK_RETRIES
(Optional) This specifies the number of times to retry SQLite repository connection when a connect attempt times out. A value of -1 retries until a connection is established.

PROF/PER_TABLE_BYTES
(Optional) This sets the value for the frequency distribution engine per table bytes. You can use any numeric value. Default is -1 (frequency distribution engine default).

PROFCONFIG/MAXFREQCACHE
(Optional) This specifies the amount of memory in kilobytes that the frequency distribution engine uses. If not specified, the default is 128kb.

QKB Options

QKB/ALLOW_INCOMPAT
(Optional) This allows data jobs to run even when the software detects that a QKB definition invoked by the job was saved by a version of the software that is later than the current version of the software. Default is NO. The default behavior is for these definitions to fail to load. Results obtained when this option is turned on are undefined.

QKB/COMPATVER
(Optional) This tells DataFlux Data Management Studio which version of the QKB to use when running a data job. Possible values include dfpower82, unity21, unity22, or dmp21 through dmp26. If not specified, it defaults to the latest version. You can use this option if you want to use the latest version of DataFlux Data Management Studio, but want the outputs of your QKB-related Data Job nodes (for example, matchcodes) to be exactly the same as the outputs for earlier versions.

QKB/ON_DEMAND
(Optional) This loads QKB definitions on demand. Default is YES. The application start-up creates a QKB pool that sets the option for all consumers (Profile, Explorer, and Nodes) with the exception of the Expression Engine, which has its own initialization. Set this option to NO to find errors within definitions and to see error messages specific to Pattern Logic nodes.

If used for a data job, this option allows QKBS to load definitions as needed instead of loading all of them at the beginning. These definitions are kept in memory for future runs that reuse that process.

If used for a service, each loaded service loads its own QKB. Once a service is loaded into memory and runs at least once, it keeps the QKB loaded from the previous run and does not have to be loaded again. Note that a QKB in memory is not shared across different services or threads, so each initiation of either a new service or a new thread for an existing service causes the QKB to be loaded. This could have an implication on memory and performance.

QKB/PATH
(Required by QKB products.) This is the path to QKB. The path is set to the default QKB as defined in the application.

QKB/SURFACEALL
Displays and makes available for reference all of the definitions for which the SURFACE flag is deselected in the QKB. The SURFACE flags can be changed when you customize a QKB.
Note: The application start-up creates a QKB pool that sets the option for all consumers (Profile, Explorer, and Nodes) with the exception of the Expression Engine that continues to have its own initialization.

**Architect Client (UI) Settings Option**

ARCHITECT/AutoPassThru  
(Optional) This provides client options to set mappings. Maintained by the client, choices are 0 (target), 1 (Source and Target), and 2 (All). This determines whether data flow nodes should automatically fill their pass-through list from their parent nodes.

**Architect and Miscellaneous Node Options (defined in ids.h)**

CLUSTER/BYTES  
(Optional) This specifies the bytes to use when clustering.

CLUSTER/LOG  
(Optional) This specifies whether a clustering log is needed.

CLUSTER/TEMP  
(Optional) This specifies the cluster temporary path.

FRED/LOG  
(Optional) This specifies whether a FRED log is needed.

JAVA/CLASSPATHS  
(Optional) This specifies the Java classpath. This overrides the Java class path for the Java plug-in node. You generally should not need to set this.

JAVA/DEBUG  
(Optional) This specifies the Java debug options.

JAVA/DEBUGPORT  
(Optional) This specifies the port to remotely debug Java.

JAVA/VMHEAP_INIT  
(Optional) This specifies the initial size of the JVM in megabytes. This should be used if you are using JVM 1.6. Start at 16 and decrease if you keep getting errors.

JAVA/VMHEAP_MAX  
(Optional) This specifies the maximum amount of heap space the JVM uses in megabytes. This should be used if you are using JVM 1.6. You can decrease this along with JAVA/VMHEAP_INIT.

VERIFY/CACHESIZE  
(Optional) This specifies the cache size by percentage.

VERIFY/CANADA  
(Required by SERP nodes) This specifies the path to the Canadian data. The Canada installation should maintain this.

VERIFY/GEO  
(Required by Geocode) This specifies the location of the Geocode/Phone data. The Geocode installation should maintain this.

VERIFY/PRELOAD  
(Optional) This preloads defined state data into memory for address verification. It is set in the app.cfg file. Valid value can be **ALL**.
VERIFY/USEDPV
(Optional) This enables or disables Delivery Point Value (DPV) processing to confirm that the address actually exists.

VERIFY/USEELOT
(Optional) This enables or disables Enhanced Line of Travel (eLOT) processing, which enables mailers to sort their mailings in approximate carrier-casing sequence using an eLOT sequence number and to qualify for enhanced carrier route presort discounts.

VERIFY/USELACS
(Optional) This enables or disables Locatable Address Conversion System (LACS) processing that enables mailers to identify and convert a rural-route address to a city-style address.

VERIFY/USERDI
(Optional) This enables or disables Residential Delivery Indicator (RDI) processing that confirms whether a particular address is residential or business.

VERIFY/USPS
(Required by the USPS) This specifies the USPS data path. This is maintained by the USPS installation.

VERIFY/USPSINST
(Required) This determines whether the USPS data is installed or if sample data is being used. This is maintained by the USPS installation.

VERIFY/INNTL/CFG
(Required by international verification) This is the address verification configuration file. The component’s installation should maintain the path.

VERIFYWORLD/DB
(Required for Platon) This specifies the Platon library universal unlock code. The component’s installation should maintain the path.

VERIFYWORLD/UNLK
(Required for Platon) This specifies the Platon data path. The component’s installation should maintain the path.

VERLQT/COUNTRY_INIT_FILTER
(Optional) This is a comma-separated list of two-letter country codes. This limits the countries from which the user can choose and for which Loqate can load data.

VERLQT/LOQATE_DATA_PATH
(Required) This is the path to the Loqate data installation folder.

VERLQT/LOQATE_LOG_PATH
(Optional) This is the path for the Loqate log file. This is the log generated by the Loqate engine, not by the application code. It can be useful for debugging.

VERLQT/MAX_REF_PAGE_CACHE_SIZE
(Optional) This specifies the maximum reference data cache size. Default is 300000. Larger values allow for more referenced data to be cached, which can improve performance. However, this also increases the amount of memory your process attempts to consume. If you encounter out-of-memory errors, try lowering this value.

VERLQT/PRELOADTABLELIST
(Optional) This is a comma-delimited list of country data table names that can be found in the Loqate data folder. Use "*" to load all countries. This is intended to improve performance by pre-loading data for specific countries. Note that this can use a very large amount of memory.
**Address Update (NCOA) Options (in dfncoa_appcfg.h)**

- **NCOA/DFAV_CACHE_SIZE**  
  (Optional) This sets the verify cache percentage for the USPS data. The higher the value, the more data is cached. The faster the processing, the more memory is used. The default is 0. It resides in macros/ncoa.cfg.

- **NCOA/DFAV_PRELOAD**  
  (Optional) This sets the verify preload options for the USPS data. Valid values are ALL or an empty string. Using ALL requires a large amount of memory. It resides in macros/ncoa.cfg.

- **NCOA/DVDPATH**  
  (Required) This is the path to the unpacked and unzipped NCOA data. It resides in macros/ncoa.cfg.

- **NCOA/QKBPARSEDEFN**  
  (Optional) This is the path to the QKB parse definition used for address updates. The default is Name (Address Update), and it resides in macros/ncoa.cfg.

- **NCOA/QKBPATH**  
  (Required) This is the path to the QKB used for Address Update name parsing. It resides in macros/ncoa.cfg.

- **NCOA/REPOS CONNECTION**  
  (Required) This specifies the connection string used to connect to the Address Update repository. This overrides NCOA/REPOS DSN, and one or the other is required. This is typically set by the Address Update Admin utility and resides in the app.cfg.

- **NCOA/REPOS DSN**  
  (Required) This specifies the DSN used to connect to the Address Update repository. It is overridden by NCOA/REPOS CONNECTION, and one or the other is required. This is typically set by the Address Update Administration utility and resides in the app.cfg.

- **NCOA/REPOS PREFIX**  
  (Required) This is the table prefix used on the Address Update tables. This is typically set by the Address Update Administration utility and resides in the app.cfg.

- **NCOA/REPOSTYPE**  
  (Required) This specifies the repository type. Valid values are: 0 (Guess), 1 (ODBC), or 2 (DFTK). If the value is 0, the node attempts to determine the type from the connection string. This is typically set by the Address Update Administration utility and resides in the app.cfg.

- **NCOA/USPSPATH**  
  (Required) This is the path to the USPS CASS/DPV/etc data. It resides in macros/ncoa.cfg.

**IntelliServer Option**

- **DFCLIENT/CFG**  
  (Required) This is used for IntelliServer. It is maintained by the dfIntelliServer installation, which is typically located at C:\Program Files\DataFlux\dfIntelliServer\etc\dfclient.cfg. Modify the dfclient.cfg file to point to the server and port.
Pooling Options

For puddle options, the name of the puddle is placed after 'POOLING/' (for example, POOLING/WFEJOB/MAXIMUM_PROCESSES). If no puddle name is specified, it is globally applied to all puddles. Here are some examples of puddles: WFEJOB - batch jobs on DMServer, WFESVC - Process services on DMSERVER, and APISVC - DFEAPI services.

POOLING/CHILD_MAXIMUM_LAUNCHES
(Optional) This specifies the throttling for launches. When specified, the number of concurrent child process launches is limited by this value. If the current child launch request exceeds the specified value, the launch waits until the number of launching processes is below the specified value. If zero or not is specified, no limit exists for concurrent child launches.

POOLING/GET_PROCESS_TIMEOUT
(Optional) This specifies the length of time, in seconds, the process requester should wait for a process to become available before it times out. If zero, the requester waits indefinitely. The acquire process time-out is in terms of the acquisition of a process and the process pooling handshaking. It does not consider the time required by the requester to complete application-level initialization. Default: no time-out.

POOLING/IDLE_TIMEOUT
(Optional) This specifies the length of time, in seconds, the process remains idle before it is terminated. If zero, idle processes are not terminated. Default: 0. This is a puddle option.

POOLING/MAXIMUM_ERRORS
(Optional) This specifies the maximum number of pooled process errors before the process is terminated. The default is 0 (never terminate it).

POOLING/MAXIMUM_PROCESSES
(Optional) This specifies the maximum number of concurrent pooled processes. If 0, the number of concurrent pooled processes is unlimited. Default is unlimited after 2.2 (previously was 10). If POOLING/GET_PROCESS_TIMEOUT is set, it waits for that amount of time to get a new process if it needs one.

POOLING/MAXIMUM_USE
(Optional) This specifies the maximum number of pooled process uses before the process is terminated. The default is 0 (unlimited).

Repository Option

REPOS/CREATE_SPEC_PATH
(Optional) This specifies the path to the RepositoryTableCreationXML file containing the custom SQL that configures the commands to create tables and indexes in the repository.

REPOS/FORCE_FILE_BASED
(Optional) This specifies how to create the repository table or index. It provides a means of configuring the commands that are used to create tables and indexes in the repository.

REPOS/TABLE_LIST_PATH
(Optional) This defines the repository XML table. The directory should contain XML files for any tables that the repository library should add during creation or
**Other Options**

**EXPRESS_MAX_STRING_LENGTH**
(Optional) This specifies the maximum size of strings declared in the expression nodes. The default maximum length of any string in this node is 5,242,880 bytes (5MB). This enables specifying a larger value in bytes. If performance issues arise, then the suggested setting is 65536 bytes.

**EXPRESSION/UDFDIR**
(Optional) This specifies where to look for UDF files. If not specified, look for UDF files in `installationdir/etc/udf`.

**JAVA/COMMAND**
(Optional) This is the command used to launch the Java proxy process. The default is Java. The Java command must be compatible with launching from the command line. Here are some examples:

- `JAVA/COMMAND = Java`
- `JAVA/COMMAND = Java -Djavax.net.ssl.trustStore=C:\Store\jssecacerts`
- `JAVA/COMMAND = Java -Djavax.net.ssl.trustStore="C:\Cert Store\jssecacerts"`
- `JAVA/COMMAND = "C:\Program Files\Java\jre6\bin\java"`

**MDM/REPOSITORY_ROOT_FOLDER**
(Optional) This allows the `foundations/master_data` to be overwritten by the user when putting the contents of `[INSTALL_ROOT]/share/mdm` into a repository.

---

**Data Access Component Directives**

The Data Access Component (DAC) enables you to connect to data using Open Database Connectivity (ODBC) and Threaded Kernel Table Services (TKTS). ODBC database source names (DSNs) are not managed by the DAC, but by the Microsoft ODBC Administrator. However, TKTS DSNs are managed by the DAC, and TKTS connections are stored in a TKTS DSN directory. The DAC reads a list of settings to determine what actions to take, where to find various things that it needs, and how to make the proper connections.

**Note:** The default DAC directives should be satisfactory for most sites. Change these settings only if you have special needs.

There are three types of DAC Configuration Directives:

**configuration options**
Most DAC settings come from configuration values specified in app.cfg or other configuration files that are read in a specific sequence. It is recommended to put these settings in the app.cfg file, but they can be put in macro.cfg or another application-specific configuration file. See “Configuration Options” on page 6 for a more comprehensive list of possible configuration values.
The DAC looks in the registry for DSN-specific items. These are found in either or both HKEY_CURRENT_USER\Software\DataFlux\dac\{version}\{dsn} or HKEY_LOCAL_MACHINE\Software\DataFlux\dac\{version}\{dsn}. In this case, "dsn" is a string with the same name as the DSN to be affected.

environment variables
You can identify the environment variables with $NAME in the following table. The application using the DAC typically sets environment variables to appropriate locations. On Windows, $DFEXEC_HOME is set to the application's root directory.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Windows</th>
<th>UNIX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command file execution</td>
<td>Specifies a text file with SQL commands (one per line). These commands run in turn on any new connection that is made. For example, they can be used to set session settings. This is implemented only for the ODBC driver.</td>
<td>The DAC/SAVEDCONNSYSTEM configuration value specifies the path to the saved connections. The DAC checks for files with the same filename as the DSN and a .sql extension.</td>
<td>The same as Windows.</td>
</tr>
<tr>
<td>Connection and login timeout</td>
<td>Enables you to specify the time in seconds for a connection time-out and a login time-out.</td>
<td>The string type value is located in USER\dsn_name\logintimeout (or connecttimeout) where dsn_name is the name of the DSN. The string value is the number of seconds for the time out. If the string type value is not found in USER, then the DAC looks in the SYSTEM\dsn_name\logintimeout.</td>
<td>Not supported.</td>
</tr>
<tr>
<td>DAC logging</td>
<td>Determines whether to create a log file for DAC operations.</td>
<td>This is controlled through the effective logging configuration files, which use the SAS logging facility. The logger name &quot;DAC&quot; should be used.</td>
<td>The same as Windows.</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
<td>Windows</td>
<td>UNIX</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>DFTK log file</td>
<td>Specifies the log file that interacts with the DFTKSRV layer and is useful only for debugging issues specific to dftksrv. This setting is applicable only if you are running DFTK out of process.</td>
<td>Look for config value DAC/DFTKLOGFILE.</td>
<td>The same as Windows.</td>
</tr>
<tr>
<td>Disable CEDA</td>
<td>Specifies whether to disable CEDA. This setting is applicable only to tkts connections.</td>
<td>Look for DAC/DFTKDISABLECEDA configuration value, which should specify any non-null value (for example, yes).</td>
<td>The same as Windows.</td>
</tr>
<tr>
<td>Multiple active results sets (MARS)</td>
<td>Specifies whether to allow a connection to open multiple result sets at the same time. This is applicable only when using the SQL Server Native Client driver on Windows against a SQL Server 2005 (or later).</td>
<td>Look in USER \dsn_name\mars for dword value of 1 where \dsn_name\ is the name of the DSN. If the DAC does not find it, it looks in the SYSTEM\dsn_name\mars.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Oracle NUMBER(38) handling</td>
<td>If connected to Oracle (only), NUMBER(38) columns are treated as INTEGER by default. To override that functionality, treat them as REAL.</td>
<td>Look in USER \oranum38real for dword value of 1. If it is not found in USER, look in SYSTEM \oranum38real.</td>
<td>Look in $HOME/.dfpower\dsn.cfg for a line \dsn_name = oranum38real where \dsn_name\ is the name of the DSN.</td>
</tr>
<tr>
<td>Read uncommitted</td>
<td>For SQL Server only, specifies that reading data from cursors is allowed to read uncommitted rows. This can alleviate lockups in SQL Server (applies to DMP version 2.3 and later).</td>
<td>Look in USER \dsn_name \readuncommitted for dword value of 1. Where \dsn_name\ is the name of the DSN. After looking in USER, look in SYSTEM.</td>
<td>Look in $HOME/.dfpower\dsn.cfg for a line \dsn_name = readuncommitted where \dsn_name\ is the name of the DSN.</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
<td>Windows</td>
<td>UNIX</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Run DFTK out of process</td>
<td>Specifies whether to run TKTS out of process, which enables you to perform troubleshooting.</td>
<td>Look for config value DAC/DFTK_PROCESS. This should specify any non-null value (for example, yes).</td>
<td>The same as Windows.</td>
</tr>
<tr>
<td>Suffix for CREATE TABLE statements</td>
<td>This enables you to provide a string that is appended to every CREATE TABLE statement. If you include %T in this string, it is substituted with the table name.</td>
<td>Look in USER \dsn_name\postcreate for a string where dsn_name is the name of the DSN. If it is not found in USER, look in SYSTEM.</td>
<td>Not supported.</td>
</tr>
<tr>
<td>System saved connection</td>
<td>Specifies where to find system-saved connections.</td>
<td>Look in DAC/SAVEDCONNSYSTEM config value for a path. If it is not found, the DAC checks for the DFEXEC_HOME environment variable in the $DFEXEC_HOME \etc\dsn subdirectory, which is in the installation directory.</td>
<td>Look for the same config value. If not found, look in the $DFEXEC_HOME/ect/dsn subdirectory, which is in the installation directory.</td>
</tr>
<tr>
<td>TK Path</td>
<td>Specifies where threaded kernel files are located. This setting is applicable only if you are running Data Factory Took Kit (DFTK) out of process. The dftksrv path and core directory should be specified.</td>
<td>Look for config value DAC/DFTK_PROCESS_PATH. If still not found, set it to $DFEXEC_HOME\bin;$DFEXEC_HOME\bin;core\sasext.</td>
<td>Same as for Windows, but sets it to $DFEXEC_HOME/lib\tkts if it is not found.</td>
</tr>
<tr>
<td>TKTS DSN directory</td>
<td>Specifies the path where TKTS DSNs are stored in XML files.</td>
<td>Look in config value DAC/DSN. If it is not found, look in $DFEXEC_HOME\etc\dfkdnsn.</td>
<td>Look in the same config value. If it is not found, look in $DFEXEC_HOME/etc/dfkdns/.</td>
</tr>
<tr>
<td>TKTS log file</td>
<td>Specifies the log file that is produced by the TKTS layer and is useful for debugging tkts issues.</td>
<td>Look for config value DAC/TKTSLOGFILE.</td>
<td>The same as Windows.</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
<td>Windows</td>
<td>UNIX</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>TKTS startup sleep</td>
<td>Specifies how much time in seconds to delay between the start of the dfktsrv program and the booting of threaded kernel. This setting is applicable only if you are running DFTK out of process.</td>
<td>The DAC checks the registry for a tktssleep value.</td>
<td>Not supported.</td>
</tr>
<tr>
<td>User saved connection</td>
<td>Specifies where to find user-saved connections.</td>
<td>Look in DAC/SAVEDCONNUSER config value for a path. If not found, look in the user's application settings directory, which is usually found in the %APPDATA% directory, in the DataFlux\dac\version subdirectory. The %APPDATA% location is C:\Users \userid\AppData\ for Windows 7 and C:\Documents and Settings\userid \Application Data\ for Windows XP. Look for the same config value. If not found, look in the $HOME/.dfpower/dsn directory.</td>
<td></td>
</tr>
<tr>
<td>Use braces</td>
<td>Specifies whether to enclose DSN items in braces when they contain reserved characters. Most drivers do not support use of braces. However, this might be an option if problems occur with saving credentials.</td>
<td>The DAC looks in USER\usebraces for dword value of 1. If it is not found there, the DAC looks in SYSTEM\usebraces.</td>
<td></td>
</tr>
</tbody>
</table>

**Logging Options**

The following log files are provided for DataFlux Data Management Studio:

- Studio log
- Platform log
- DAC log
• TKTS log

If enabled, the TKTS log captures TKTS events such as BASE data sets and data sent across the wire to SAS Federation Server. The TKTS log provides a default set of information that cannot be customized.

The Studio log, the Platform log, and the DAC log are enabled by default. These logs use the SAS Logging Facility, a flexible and configurable framework that you can use to collect, categorize, and filter events. Then you can write them to a variety of output devices. The logging facility supports problem diagnosis and resolution, performance and capacity management, and auditing and regulatory compliance.

The logging facility framework categorizes and filters log messages in SAS server and SAS programming environments. It also writes log messages to various output devices. In the server environment, the logging facility logs messages based on predefined message categories such as the following:

• Admin for administrative messages
• App for application messages
• Perf for performance messages

Messages for a category can be written to files, consoles, and other system destinations simultaneously. The logging facility also enables messages to be filtered based on the following thresholds, in order from most inclusive to least inclusive: TRACE, DEBUG, INFO, WARN, ERROR, and FATAL. The configuration files for the Studio log, the Platform log, and the DAC log contain a template for logging options. You need only to uncomment certain lines to turn on the corresponding options. For a full description of these options, see the *SAS Logging: Configuration and Programming Reference*. There are also some DataFlux options for logs. See “Data Access Component Logging Options” on page 12.

The following table specifies the scope, level thresholds, and configuration location for each of these logs:

<table>
<thead>
<tr>
<th>Name</th>
<th>Scope</th>
<th>Level Thresholds</th>
<th>Configuration Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>DataFlux Data Management Studio events</td>
<td>TRACE, DEBUG, INFO, WARN, ERROR, and FATAL</td>
<td>By default, these are enabled. To disable, see note below.</td>
</tr>
<tr>
<td>Platform</td>
<td>Engine events</td>
<td>TRACE, DEBUG, INFO, WARN, ERROR, and FATAL</td>
<td>By default, these are enabled. To disable, see note below.</td>
</tr>
<tr>
<td>DAC</td>
<td>Data access events</td>
<td>TRACE, DEBUG, INFO, WARN, ERROR, and FATAL</td>
<td>By default, these are enabled. To disable, see note below.</td>
</tr>
<tr>
<td>TKTS</td>
<td>TKTS events such as BASE data sets and data sent across the wire to SAS Federation Server</td>
<td>Not configurable</td>
<td>drive:\Program Files\DataFlux\DMStudio\studio1\etc\app.cfg</td>
</tr>
</tbody>
</table>
By default, all Windows XP log files are written to `drive:\Documents and Settings\USERNAME\Application Data\DataFlux\DMStudio\[version]\Logs`. The default location in Windows 7 is `drive:\Users\[username]\AppData\Roaming\DataFlux\DMStudio\[version]\Logs`.

All Studio, Platform, and DAC logs by default are all logged to the platform log file. This log file is prefixed with platform_. The DAC logging can be redirected to its own log file by uncommenting the appender-ref setting in the logger section for DF.DAC and by uncommenting the RollingFileAppender section for DacFile. The latter contains the filename pattern that controls where and what name the DAC log file takes. The Studio logging can be redirected to its own log file by uncommenting the appender-ref setting in the logger section for DF.DMStudio and by uncommenting the RollingFileAppender section for DMStudioFile. The latter contains the filename pattern that controls where and what name the Studio log file takes.

The Studio, Platform, and DAC logging all use a logging level of INFO by default. This level is set in the root logger section of the platform.log.xml configuration file. The level value can be changed here to change the default for all three logs. In addition, the logging level for the DAC and Studio logs can be set separately in the DF.DAC and DF.DMStudio logger sections respectively by uncommenting (and possibly updating) the level values in each.

The platform.log.xml file controls all of Studio, Platform, and DAC logging within the DataFlux Data Management Studio application except for job runs. When you run a job, the application creates a separate batch process for that job run. Therefore, you should modify the batch.log.xml to configure logging for jobs.

By default, the Platform log contains run-time statistics for job nodes. See option “BASE/MONITOR_FREQUENCY” on page 10 for details about these statistics. To disable all job node statistics from the Platform log, add the following block immediately before the `<root>` section at the bottom of *.log.xml file:

```xml
<logger name="DF_Monitor">
  <level value="OFF"/>
</logger>
```
Chapter 3
Installing or Configuring Related Products

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Installing Data Packs

Data Packs are collections of third-party enrichment data, such as Loqate international address data, and are not installed as part of the SAS Deployment Wizard process. If you have licensed Data Pack, go to SAS support site to download and install these products. Use the Release Notes to verify that they are compatible with your version of SAS software.

Download Datapacks
After you install a data pack, see the topic for that feature in the *DataFlux Data Management Studio: User’s Guide* to enable access to that data pack.

---

### Installing Supplemental Language Support

If you plan to use DataFlux Data Management Studio for data that includes East Asian languages or right-to-left languages, you must install additional language support. To install these packages:

1. Select Start ⇒ Settings ⇒ Control Panel.
2. Double-click Regional and Language Options.
3. In the Regional and Language Options dialog box, click the Languages tab.
4. Under Supplemental Language Support, select the check boxes for Install Files for complex script and right-to-left languages (including Thai) and Install files for East Asian languages.
5. The Microsoft Windows installer guides you through the installation of these language packages.

---

### Setup for the Address Update Add-On

#### Overview

The DataFlux® Address Update add-on enables you to use the United States Postal Service (USPS) NCOALink® system to identify and update customer address information. This section describes how to perform some of the setup tasks for the Address Update Add-on to DataFlux Data Management Studio. The setup tasks described here are performed outside of the application. Also see the Address Update Add-On chapter in the *DataFlux Data Management Studio User’s Guide*, which describes setup tasks required in the interface.

#### Obtain a License for DataFlux Products and USPS Components

If you are receiving this DataFlux product as part of a SAS® license, the DataFlux license file is provided with your SAS installation media. If you need assistance in obtaining a license, contact your SAS account representative or access the DataFlux Unlock Code page at support.sas.com/contact/additional/dfunlockreq.html.

Contact the USPS to obtain the required licensing and certification.

If you are using the DataFlux Data Management Server to execute address update jobs, you must also have the appropriate DataFlux licenses and USPS licenses on that server.

#### Install DataFlux Software

Install the following DataFlux software if this has not been done:

- DataFlux Data Management Studio
• DataFlux Quality Knowledge Base (QKB) for Contact Information from 2011 or later
• Address Update Add-on installer for DataFlux Data Management Studio

If you are using the DataFlux Data Management Server to execute address update jobs, you must also install the following when you are ready to use the server.

• DataFlux Data Management Server: See the DataFlux Data Management Server Administrator's Guide.
• Address Update Add-on installer for Data Management Server, which updates Data Management Server to support the Address Update Add-on.

Address Update jobs must be able to access the DataFlux USPS Verify data from the computer where the jobs are executed. The Verify data is available for Microsoft Windows and UNIX systems. The path to this data is specified in the ncoa.cfg file, which is described later. Be sure to record the installation path to this data. The default installation path for Windows is C:\Program Files\DataFlux\VerifyData\.

Install Address Update Data from USPS

Address Update jobs must be able to access the USPS NCOALink® data from the computer where the jobs are executed. If you are using the Data Management Server to execute the address update jobs, you must obtain and license this data from the USPS and install the data so that it is accessible to both the DataFlux Data Management Studio and the Data Management Server. You can copy this information to both computers, or make the information available on a shared file system, as long as you follow the terms of the license. The path to this data is specified in the ncoa.cfg file, which is described later. This data is delivered either on a DVD or electronically from USPS.

Address Update processing does not take place unless you have specific data folders in the expected locations with the correct data files. To ensure that this folder structure is created:

1. Create a folder called "NCOA Data" on your drive.
2. Add subfolders called "DVD 1" and "DVD 2" under the NCOA Data folder.
3. Add subfolders called "CLK" and "RV9" under the DVD 2 folder.

This structure yields the following layout:

C:\NCOA Data\DVD 1\nC:\NCOA Data\DVD 2\ CLK\nC:\NCOA Data\DVD 2\ RV9\n
To install Address Update Data:

1. Copy all of the files on DVD 1 into the DVD 1\ directory.
2. Unzip all of the ZIP files on DVD 1 into the DVD 1\ directory.
3. Copy all of the files on DVD 2 into the DVD 2\ directory.
4. Unzip the file CLK.ZIP into the CLK\ directory under the DVD 2\ directory.
5. Unzip the file RV9.ZIP into the RV9\ directory under the DVD 2\ directory.

If you are processing flat files, a sample layout looks like this:
If you are processing Hash files, a sample layout looks like this:

<table>
<thead>
<tr>
<th>Subfolder</th>
<th>Files</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>C:\NCOA Data\ DVD 1\</td>
<td>clkflt.1</td>
<td>Unpacked from CLK.A.HS1.SZP</td>
</tr>
<tr>
<td></td>
<td>clkflt.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and so on</td>
<td></td>
</tr>
<tr>
<td>C:\NCOA Data\ DVD 2\</td>
<td>clk.a.hf0</td>
<td>Use the dfAddrHu utility</td>
</tr>
<tr>
<td></td>
<td>clk.b.hf0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and so on</td>
<td></td>
</tr>
<tr>
<td>C:\NCOA Data\ DVD 2\ CLK</td>
<td>business.lst</td>
<td>Folder unzipped from CLK.ZIP</td>
</tr>
<tr>
<td></td>
<td>clkflt.3</td>
<td>and so on</td>
</tr>
<tr>
<td></td>
<td>and so on</td>
<td></td>
</tr>
<tr>
<td>C:\NCOA Data\ DVD 2\ RV9</td>
<td>cln.dat</td>
<td>Folder unzipped from RV9.ZIP</td>
</tr>
<tr>
<td></td>
<td>cln.txt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>crd.dat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and so on</td>
<td></td>
</tr>
</tbody>
</table>

and so on
You must unpack Hash files (.szp). DataFlux has provided a utility called `dfAddrHu`.

You can access the `dfAddrHu` utility in the `C:\Program Files > DataFlux > DM Studio > [version number] bin` directory, with the following syntax:

```
dfAddrHu [<options>] --i [<input>] --o [<output>].
```

To run the utility, specify the path location to the DVD 1 folder as both the input and the output, as follows:

```
dfAddrHu <path to DVD 1 folder> <path to DVD1 folder>.
```

For example, you can specify the paths as `dfAddrHu "C:\NCOA Data\DVD 1" "C:\NCOA Data\DVD 1"`.

The utility reads through the DVD 1 folder and unpacks all of the .szp files into the same folder.

**Update the ncoa.cfg File**

The physical paths for Address Update data, the DataFlux QKB, and USPS data for Verify (CASS, DPV, and LACS) must be specified in the `ncoa.cfg` file on any computer that executes address update jobs. You should configure the `ncoa.cfg` file for DataFlux Data Management Studio and confirm that it is working correctly. Then you can copy the `ncoa.cfg` file to Data Management Server and edit paths if necessary.

For DataFlux Data Management Studio, add the following options to the `ncoa.cfg` file, located at `C:\Program Files\DataFlux\DMStudio\<version number>\etc \macros`:

- **NCOA/DVDPATH**
  Location where the USPS NCOALINK data is installed
  Example: `ncoa/dvdp = "C:\NCOA Data\"`
NCOA/QKBPATH
The location of the QKB (minimum of QKB for Contact Information 2011A is required)
Example: ncoa/qkbpath = "C:\Program Files\DataFlux\QKB\CI\2011A"

NCOA/USPSPATH
Location of the DataFlux USPS Verify data (CASS, DPV, LACS)
Example: ncoa/uspspath = "C:\Program Files\DataFlux\VerifyData\data\1105\usps"

The following optional settings are available for the United States Postal Service (USPS), CASS, and LACS configuration. Set this option for the Address Update node in the ncoa.cfg file. Note that these options do not affect the operation of the Address Verify nodes.

NCOA/DFAV_CACHE_SIZE
Range: 0 through 100 and indicates how much USPS data to cache. The higher the value, the more data is cached. The faster the processing, the more memory used. The default is 0.

NCOA/DFAV_PRELOAD
Set dfav/verify preload options for the USPS data. Provide the names of states to preload, to accelerate address verification for those states. Valid values include:

"." - do not preload any states (default)
"ALL" - preload all states
"MIL" - preload military addresses only
"CONUSA" - preload the 48 contiguous states
"TX FL" - preload Texas and Florida

Note: Monitor the impact of the NCOA/DFAV_CACHE_SIZE and NCOA/DFAV_PRELOAD options on the available memory on your system. If you run out of memory, you might consider decreasing the amount of memory that you have allocated to these options.

After you have run a sample address update job and verified that the ncoa.cfg file is working properly, copy the ncoa.cfg file to DataFlux Data Management Server and edit paths if necessary (for example, C:\Program Files\DataFlux\DMServer<version number>\etc\macros).

Update the app.cfg File

DataFlux Data Management Studio has a PAF administration dialog box. For instructions about using this dialog box, see the Online Help under "Administering the Address Update Add-On". The PAF administration dialog box updates the app.cfg file.

Descriptions of the options added by the PAF administration dialog box are as follows:

NCOA/REPOSDSN
DSN connection for the address update repository

NCOA/REPOSPREFIX
Table prefix for the tables in this repository, if a prefix has been specified

NCOA/REPOSTYPE
Value that indicates the type of repository:

0 = NULL (DataFlux Data Access Component (DAC) attempts to determine the repository type from the connect string)
1 = ODBC DSN
The type depends on how the address update repository was configured in the PAF administration dialog box.

If you are using the DataFlux Data Management Server to execute address update jobs and have run a sample address update job and verified that the app.cfg file is working properly, then copy the app.cfg file to DataFlux Data Management Server and edit paths if necessary (for example, C:\Program Files\DataFlux\DMServer\<version number>\etc).

**Setup Continues in DataFlux Data Management Studio**

See the DataFlux Data Management Studio Online Help Address Update Add-On section for additional information about setup tasks that must be performed.

**USPS Copyright Disclosure**

DataFlux is a non-exclusive interface distributor of the United States Postal Service and holds a non-exclusive license from the United States Postal Service to publish and sell USPS CASS, DPV, and RDI information. This information is confidential and proprietary to the United States Postal Service. The price of these products is neither established, controlled, or approved by the United States Postal Service.

**Installing Support for the SAP RFC Node**

If you open a data job in DataFlux Data Management Studio, the **SAP Remote Function Call** node is available in the **Data Integration** folder. This node enables you to read and write data using the SAP RFC and Business Application Programming Interfaces (BAPI) provided by SAP when using the SAP Unicode libraries. This functionality is useful for the following:

- reading information from SAP that is not readily available in tables
- using the functionality that SAP exposes as BAPIs
- loading data to SAP by using functions provided by SAP that are a standard way of updating objects
- triggering an upload to SAP by using functions that take (for example, an external file input)

In order to use the SAP Remote Function Call node, you must install SAP Unicode libraries (DLLs) on the computer where the job that contains the node is executed. For example, if you use DataFlux Data Management Studio to execute a job with an **SAP Remote Function Call** node, then you must install the SAP libraries on the computer where the software is running. If you execute a job with an SAP Remote Function Call node, then you must install the SAP libraries on the computer where Data Management Server is running.

DataFlux Data Management Studio is a 32-bit Windows application and requires 32-bit SAP libraries. See the SAP documentation for details about installing these libraries.

DataFlux Data Management Servers can be either 32-bit or 64-bit. See the SAP documentation for details about installing the appropriate libraries. Note that for DataFlux Data Management Servers running on UNIX systems, you can set the **SAP_LIBPATH** option in the app.cfg file to point to the SAP DLLs.
Optional Configuration Steps for the Monitor and Dashboard Governance Report

Overview

DataFlux Data Management Studio enables you to create business rules. These rules can be used to monitor the quality of output from data jobs. One way to monitor these jobs is to use the Dashboard Viewer and Monitor Viewer in DataFlux Web Studio. DataFlux Web Studio is a Flash-based application, and Adobe will soon end support for Flash. Accordingly, SAS provides a SAS Visual Analytics report that provides similar information to the Dashboard Viewer and Monitor Viewer.

SAS provides the SAS Visual Analytics report and a predefined DataFlux Data Management Studio process job. Typically, you deploy the pre-defined process job to a DataFlux Data Management Server and run it from there. The job reads monitor and dashboard data from one or more repositories that are managed by the DataFlux Data Management Server. The job writes three tables into a staging database on the SAS Monitor and Dashboard Data Server and loads them into SAS LASR Analytic Server. The tables can be accessed in the new Monitor and Dashboard Governance Report.

Prerequisites

Before using the Monitor and Dashboard Governance Report, ensure that your system meets the following prerequisites:

- Ensure that you have been using business rules to monitor the quality of data created by data jobs, as described in the Monitoring Data section of the DataFlux Data Management Studio: User Guide.

- Ensure that your site has deployed SAS Data Governance, SAS Data Quality Advanced, or SAS Data Management Advanced for the 9.4m6 release. The following assets are created automatically when the data management offerings are deployed:
  - A staging database is created on the SAS Monitor and Dashboard Data Server.
  - The Authentication Domain DataManagement_MonDash_Admin_Auth is created on the SAS Metadata Server.

- Ensure that you have a SAS LASR Analytic Server to run the SAS Visual Analytics report. This server is included with SAS Visual Analytics Administration and Reporting (VAAR) software. VAAR software is included with the data management offerings mentioned above.

- Ensure that the following items are deployed on Windows in <SASHome>\SASReferenceDataManager\<version>\Config\mondash:
  - a SAS Visual Analytics package, mondash_va7.4.spk
  - DataFlux Data Management Server process job, push_monitor_to_lasr.djf
  - a configuration file, mondash_sample.cfg
• Ensure that the following items are deployed on UNIX in `<SASHome>/SASReferenceDataManager/<version>/Config/mondash`:
  • a SAS Visual Analytics package, mondash_va7.4.spk
  • DataFlux Data Management Server process job, push_monitor_to_lasr.djf
  • a configuration file, mondash_sample.cfg
  • odbc_ini_edit.txt

• Verify that users who want to populate the content in the SAS Visual Analytics report, or refresh it from the DataFlux Data Management Server, are members of the Monitoring Dashboard Viewer Database Administrators Group, which has the `DataManagement_MonDash_Admin_Auth` domain.

• Add members by going to SAS Management Console ⇒ User Manager to select the group and add the member.

**Figure 3.1 Add Members to the Monitoring Dashboard Viewer Database Administrators Group**

---

**Initiating the SAS Visual Analytics Report**

Perform the following steps to import the .spk file and update the configuration file.

**Import the .spk File**

Import the pre-defined SAS Visual Analytics report and data sources from the .spk file using SAS Management Console.

*Note:* The user who runs the process job must have permissions to load and overwrite tables on the SAS LASR Analytic Server.

1. In SAS Management Console, select the **Folders** tab, right-click on **SAS Folders**, and select **Import SAS Package**.
2. Enter the location of the mondash_va7.4.spk package and complete the following selections:
   - Verify that the All Objects radio button is selected. Click Next.
   - Verify that all of the objects to be imported are selected. Click Next.
   - An informational screen reminds you to specify the SAS Application Server and any other server. Click Next.
   - Specify your SAS Application Server. Click Next.
   - Specify the SAS LASR Analytic Server. Click Next.
   - Verify your selections in the Summary window. Click Next.
   - Once the import is finished, the Import Complete window appears. Click Finish.

In SAS Management Console, select Products → SAS Data Management folder → Properties → Authorization tab. Add the group permissions listed and add the appropriate users to each group.

*Note:* These permissions are inherited by the subfolders.

*Figure 3.2 Permissions for the Monitoring Dashboard Viewer Database Administrators Group*
Figure 3.3 Permissions for the Visual Analytics Users Group

Update the Sample Configuration File

The sample configuration file `<SASHome>\SASReferenceDataManager\<version>\Config\mondash\mondash_sample.cfg` contains the connection information for the SAS database to which the monitor and dashboard tables are written.

- On Windows, copy the file to the macros folder for the DataFlux Data Management Server, `<SASHome>\DataFluxDataManagementServer\<version>\etc\macros`.

- On UNIX, copy the file to `<SASHome>/DataFluxDataManagementServer/<version>/dmserver/etc/macros`.

Based on your system, comment or uncomment the appropriate MONDASH/DSN line and update your database, host, port, and driver information if needed.

```
# WINDOWS ONLY:
# This setting determines the connect string for connecting to the
# SAS database that the monitor and dashboard tables will be written to prior to
# loading into lasr in postgres. The 'Driver' key will need to change
```
# depending on whether using 32 or 64 bit.
# The DFXDOMAIN, DB, Host, and Port fields are setup by SAS Deployment and
# should not need to change
# Specify the following attributes in a single line.
MONDASH/DSN=Driver=DataFlux 64-bit Postgres Wire Protocol;
DFXDOMAIN=DataManagement_MonDash_Admin_Auth;DB=dmmondashdb;
Host=rdcesx21010.race.sas.com;Port=10532;DFXTYPE=ODBC

# UNIX ONLY:
# Comment out the above, and uncomment this.
# In addition you will need to edit odbc.ini to ensure that refdatapgdsn exists.
# Specify the following attributes in a single line.
MONDASH/DSN=DSN=refdatapgdsn;DFXDOMAIN=DataManagement_MonDash_Admin_Auth;
DB=dmmondashdb;Host=rdcesx21010.race.sas.com;Port=10532;DFXTYPE=ODBC

# This determines the prefix on the RDM tables. This is prepended to table names
# when issuing SQL.
# MONDASH/PREFIX=sas_dq_

Note: On UNIX, update the SASHome/DataFluxDataManagementServer/
<version>/dmserver/etc odbc.ini file with the DSN from the odbc_ini_edit.txt file.

### Run the Extraction Job

The extraction job is the DataFlux process job push_monitor_to_lasr.djf that can be run
on either DataFlux Data Management Studio or on DataFlux Data Management Server.
This job extracts the data from the default DataFlux repository, inserts the data into a set
of tables stored in a pre-defined staging area, and then runs SAS code to upload all the
data in the staging area to LASR. Make sure that the SAS LASR Analytic Server is
running. The job has parameters to specify things like SAS Visual Analytics credentials,
SAS LASR Analytic Server information, and staging area database properties. Before
the insert occurs, all records for the current repository (based on repos-ID) are deleted
from each of the staging tables.

Select one of these options to run the job:

- To use DataFlux Data Management Studio, follow these steps:
  1. Store the job in a folder in the Folders riser bar that is in the repository that you
     want to report on. The job uses the "default repository" concept.
  2. Edit the job and modify the first Echo node in the job to specify values for the
     parameters. Then run the job.

- To use DataFlux Data Management Server, follow these steps:
  1. Move the process job to <SASHome>\DataFluxDataManagementServer
     \<version>\var\batch_jobs.

     Note: On UNIX the process path is <SASHome>/
     DataFluxDataManagementServer/<version>/dmserver/var/
     batch_jobs.
  2. Run the process job in the server by running it in dmpexec or by clicking on the
     run icon in the Data Management Server riser bar in Data Management Studio.
When using dmpexec to run the job, you can specify values for the job parameters by using the command line or storing them in a configuration file. See the section on dmpexec in the Data Management Server Administration Guide for details.

When using the run icon in the Data Management Servers riser bar in Data Management Studio, a window opens to list the job parameters. You can edit these values:

- **SAS_HOST** - your SAS Workspace Server
- **SAS_PORT** - your SAS Workspace Server (usually 8591)
- **SAS_USER** - the user that runs the job needs permissions in LASR to load or overwrite tables
- **SAS_PASSWORD** - Encrypted password using the DataFluxDataManagementServer/bin/EncryptPassword.exe available from `<SASHome>\DataFluxDataManagementServer\<version>\bin`.  
  
  **Note:** The EncryptPassword.exe exists only on Windows. On UNIX the equivalent for encrypting a password is to use the dmsadmin script. For example, you can use  
  
  `<SASHOME>DataFluxDataManagementServer/<version>/dmserver/bin/dmsadmin crypt`

  where the crypt option instructs the system to encrypt a password.

  ```bash`
  /local/install/configar/SASHome/DataFluxDataManagementServer/2.8/bin/dmsadmin crypt
  Enter password: 
  Confirm password: 
  Encrypted value: mG0YKE5G7vMJ=
  ```

- **LASR_HOST** - SAS LASR Analytic Server host
- **LASR_PORT** - SAS LASR Analytic Server port
- **LASR_AUTH_URL**
- **LOG_LIMIT** - Number of log result records to be extracted

The job reads monitor and dashboard data from a defined repository, writes this data to the SAS Monitor and Dashboard Data Server, and uploads the data to a SAS LASR Analytic Server. To get the latest data quality information, re-run the DataFlux job.

**Access the Report in SAS Visual Analytics**

Optional Configuration Steps for Data Management Platform Integration with Reference Data Manager

Overview

DataFlux Reference Data Manager is a separately licensed module in DataFlux Web Studio. It enables you to create collections of reference data that are referred to as domains. The following features in DataFlux Data Management Studio can use these domains:

- the Domains node and Domain Items node for data jobs
- the “Compare a field to reference data domain” rule in Business Rule Manager

DataFlux Web Studio is a Flash-based application. Adobe will soon end support for Flash. If you are concerned about the end-of-life for Flash, you can use a new application, SAS Reference Data Manager, to create domains. The new domains are stored in the SAS mid-tier, not in a DataFlux repository.

To use SAS Reference Data Manager, you must deploy SAS Data Governance, SAS Data Quality Advanced, or SAS Data Management Advanced for the 9.4m6 release. These offerings include SAS Reference Data Manager. They also deploy the following assets:

- Sample configuration files are deployed for DataFlux Data Management Studio and DataFlux Data Management Server.
- A database for SAS Reference Data Manager is created on the SAS Data Management Data Server in the SAS mid-tier.
- A non-administrative user and password is registered for the SAS Reference Data Manager database.
- The RDM Database Access Users Group is created on the SAS Metadata Server. This group includes the non-administrative user and password for the SAS Reference Data Manager database and the authentication domain `DataManagement_RDM_Access_Auth`.

Prerequisites

To use SAS Reference Data Manager to create domains, do the following:

- Deploy SAS Data Governance, SAS Data Quality Advanced, or SAS Data Management Advanced for the 9.4m6 release. These offerings include SAS Reference Data Manager, and they deploy sample configuration files and other required assets.

- To create new domains in SAS Reference Data Manager, see SAS Reference Data Manager: User’s Guide.

- If your site has domains that were created with DataFlux Reference Data Manager, you can migrate them to the SAS mid-tier. You can then use SAS Reference Data Manager to maintain these domains. See “Migrating SAS Reference Data Manager” in SAS Reference Data Manager: User’s Guide for more information.
Review the sample configuration files for DataFlux Data Management Studio, DataFlux Data Management Server, or both, as described below.

Update Sample Configuration Files for DataFlux Software

Sample configuration files are deployed with SAS Data Governance, SAS Data Quality Advanced, or SAS Data Management Advanced for the 9.4m6 release.

On Windows, the following configuration files are deployed:

- The rdm_sample.cfg file is deployed in `<SASHome>\SASReferenceDataManager\<version>\Config\rdm`. It includes options that enable DataFlux Data Management Studio and DataFlux Data Management Server to find reference data in the SAS mid-tier.

- The odbc_ini_edit.txt file is deployed in `<SASHome>\SASReferenceDataManager\<version>\Config\mondash`. It contains the DSN connection for a DataFlux Data Management Server on UNIX to find reference data in the SAS mid-tier.

On UNIX, the following configuration files are deployed:

- The rdm_sample.cfg file is deployed in `<SASHome>/SASReferenceDataManager/<version>/Config/rdm/`

- The odbc_ini_edit.txt file is deployed in `<SASHome>/SASReferenceDataManager/<version>/Config/mondash/`

Perform the following steps to edit one or both of these files:

1. Review the options in the sample configuration file rdm_sample.cfg. Make any required updates, as indicated by the comments in the file. Then copy the updated file to the etc/macros folder for DataFlux Data Management Studio and DataFlux Data Management Server.

   Here is an example path to the etc/macros folder: `C:\Program Files\SASHome\DataFluxDataManagementStudio\2.7\etc\macros`

2. Use the following guidelines to update the options in the rdm_sample.cfg file:

   ```
   #
   # This setting determines whether to enable the new method for
   # connecting to RDM data source. If this is not set to true then
   # behavior will be identical to original dmserver/studio 2.7 with
   # repository connection
   #
   REFCDATA/DATASERVER=true
   #
   # WINDOWS ONLY:
   # This setting determines the connect string for connecting to the
   # RDM database in postgres. The 'Driver' key will need to change
   # depending on whether using 32 or 64 bit.
   # The DFXDOMAIN, DB, Host, and Port fields are setup by SAS Deployment
   # and should not need to change.
   # Specify the following attributes in a single line.
   # REFCDATA/DSN=Driver=DataFlux 64-bit Postgres Wire Protocol;
   # DFXDOMAIN=DataManagement_RDM_Access_Auth;DB=dmrdmdb;
   # Host=my_dm_dataserver;Port=10442;DFXTYPE=ODBC
   #
   # UNIX ONLY:
   ```
# Comment out the above, and uncomment this.
# In addition you will need to edit odbc.ini to ensure that refdatapgsdn exists.
# Specify the following attributes in a single line.
REFDATA/DSN=refdatapgsdn;
DFXDOMAIN=DataManagement_RDM_Access_Auth;
DB=dmrdmdb;Host=my_dm_dataserver;Port=10442;DFXTYPE=ODBC

#
# This determines the prefix on the RDM tables. This is prepended to table names
# when issuing SQL.
#
REFDATA/PREFIX=sas_rdm_

3. If your DataFlux Data Management Server is on UNIX:
   a. Locate the odbc_ini_edit.txt file that was deployed with SAS Reference Data Manager.
   b. Update the `<SASHome>/DataFluxDataManagementServer/2.7/dmserver/etc odbc.ini` file with the DSN from the odbc.ini.txt file.
   c. Re-start the server so that the changes take effect.

Usage Notes for DataFlux Data Management Studio and DataFlux Data Management Server

DataFlux data jobs can include the **Domains** node, the **Domain Items** node, and the “Compare a field to reference data domain” rule. Anyone who runs a data job that uses these features to access domains on the SAS mid-tier must be a member of the **RDM Database Access Users Group** on the SAS Metadata Server.
Appendix 1

Legal Notices

Apache Portable Runtime License Disclosure

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If DataFlux believes the virtualization layer is the root cause of an incident, the customer will be directed to contact the appropriate VMware support provider to resolve the VMware issue and DataFlux shall have no further obligation for the issue.
Recommended Reading

- DataFlux Data Management Studio Users Guide
- DataFlux Web Studio User's Guide
- DataFlux Web Studio Installation and Configuration Guide
- DataFlux Authentication Server Administrator's Guide
- DataFlux Authentication Server User's Guide
- DataFlux Data Management Server Administrator's Guide
- DataFlux Data Management Server User's Guide
- DataFlux Expression Language Reference Guide for Data Management Studio
- SAS Federation Server Administrator's Guide
- SAS Federation Server User's Guide
- DataFlux Migration Guide
- DataFlux Quality Knowledge Base Online Help and SAS Quality Knowledge Base Online Help
- The New IT: How Technology Leaders Are Enabling Business Strategy in the Digital Age

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