

DataSplice®

Mobile Computing

DataSplice MAXIMO® 4.x

Add-on Package Manual

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Introduction

Purpose

This guide describes the process of installing and configuring the DataSplice add-on package for the MAXIMO® computerized maintenance management system (CMMS) version 4.x. This package provides a set of views and associated scripts to enable the DataSplice Server to interact with the MAXIMO® database.

Audience

This manual is intended for administrators of a DataSplice system connecting to a MAXIMO® 4.x system.

Version Information

The information in this guide is relevant for DataSplice version **3.0.0**.

DataSplice Add-on Package Installation & Configuration

The installation and configuration of the DataSplice add-on package for MAXIMO® 4.x is examined in the following sections:

- [System Requirements](#)
- [Installing the DataSplice Add-on Package for Oracle](#)
- [Installing the DataSplice Add-on Package for SQL Server](#)

System Requirements

The following information details the system requirements for the DataSplice add-on package for MAXIMO® 4.x.

Requirements	DataSplice Add-on Package for MAXIMO® 4.x
Required DataSplice Software	<ul style="list-style-type: none">• DataSplice Server
Supported Operating Systems	<ul style="list-style-type: none">• Microsoft Windows NT4 (Workstation or Server) service pack 6a or later• Microsoft Windows 2000 (Professional, Server, or Advanced Server) service pack 4 or later• Microsoft Windows XP (Home or Professional) service pack 2 or later• Microsoft Windows Server 2003 family
Processor Requirements	<ul style="list-style-type: none">• 1 GHz or faster
Memory Requirements	<ul style="list-style-type: none">• 512 MB RAM (1 GB or more recommended)
Available Storage Requirements	<ul style="list-style-type: none">• 8 MB
Additional Required Components	<ul style="list-style-type: none">• DataSplice Server• Microsoft .NET Framework version 1.1 or newer• Microsoft Data Access Components (MDAC) version 2.8 or higher
Permission Requirements	<ul style="list-style-type: none">• Valid permissions to run scripts on the database server

Installing the DataSplice Add-on Package for Oracle

To install the DataSplice add-on package for MAXIMO® 4.x on Oracle, first obtain the DataSplice3_Max4x_Oracle_AddOn.zip file. This file can be found by logging in to <http://www.datasplice.com/>. Upon successful login, the customer downloads page is displayed, with the list of available files. The file of interest is titled as DataSplice 3.0 MAXIMO 4.x Add-on Package for Oracle.

Once the file is downloaded, unzip it to reveal the following two folders:

- Storage - Contains the views for this package.
- Scripts - Contains the corresponding scripts for this package.

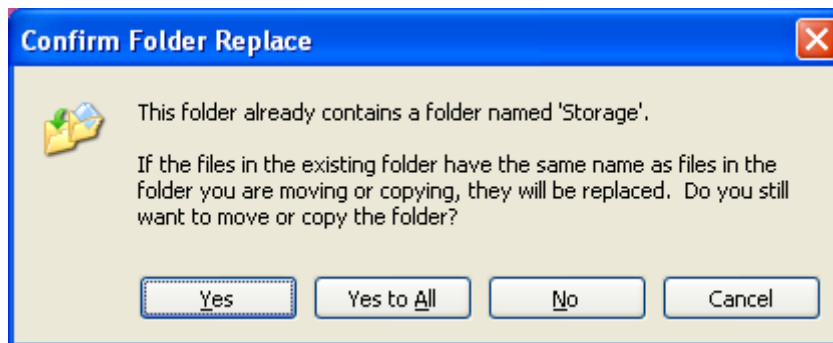
The use of these two folders is described in detail in the following two steps that are required to successfully install the add-on package:

- [Installing the DataSplice Views for Oracle](#)
- [Executing the DataSplice Scripts for Oracle](#)

Installing the DataSplice Views for Oracle

The `Storage` folder contained within the add-on package installation zip file has the required DataSplice views for Oracle. To install these views, follow these steps:

- Ensure that the DataSplice Server program is not currently running. If it is, shut it down.
- Copy the `Storage` folder included in the add-on package installation zip file into the DataSplice installation directory. By default, this directory path is `C:\Program Files\DataSplice3`.
- If prompted to overwrite the existing folder of the same name, choose **Yes to All**.

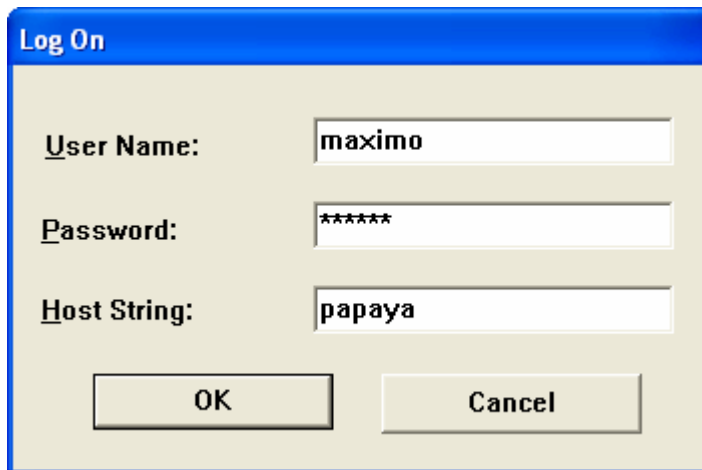


This copies the appropriate `Storage` folder contents, including the DataSplice views, with the correct sub-directory structure in place. The next time the DataSplice Server is launched, it will recognize these views.

Executing the DataSplice Scripts for Oracle

Executing the DataSplice scripts for Oracle implements the necessary database views, packages, and procedures to allow the DataSplice views to successfully communicate with the MAXIMO® database. In preparation of the script execution, perform the following steps:

- Copy the `Scripts` folder included in the add-on package zip file to a convenient location, such as `C:\temp`.
- Log in to Oracle SQL Plus or a similar utility application.
 - **User Name** - The user name of the CMMS schema owner. This is typically *maximo*.
 - **Password** - The password corresponding to the given user name.
 - **Host String** - The database name, as referenced in the TNS listing file. Depending on the version of Oracle in place, the `tnsnames.ora` file may be located at `C:\oracle\ora92\network\ADMIN` or a similar location.

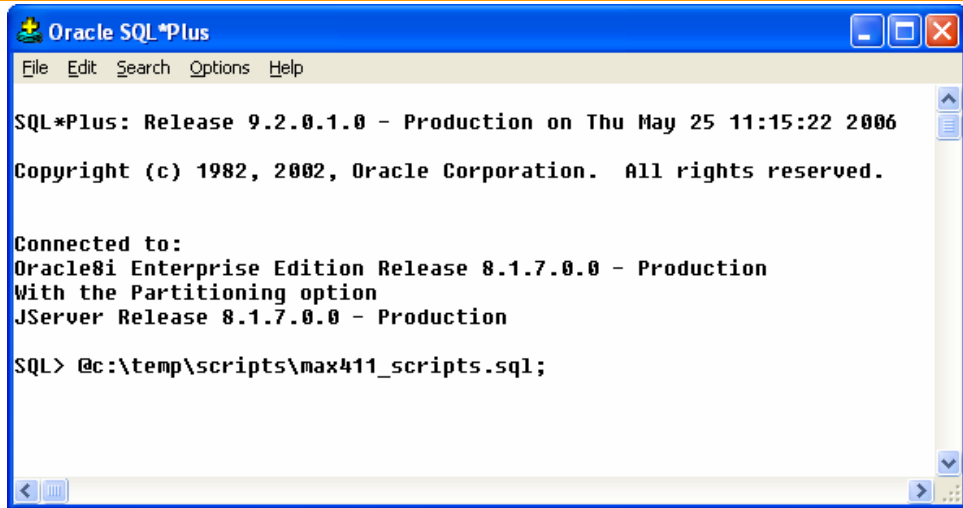


- Click **OK**.

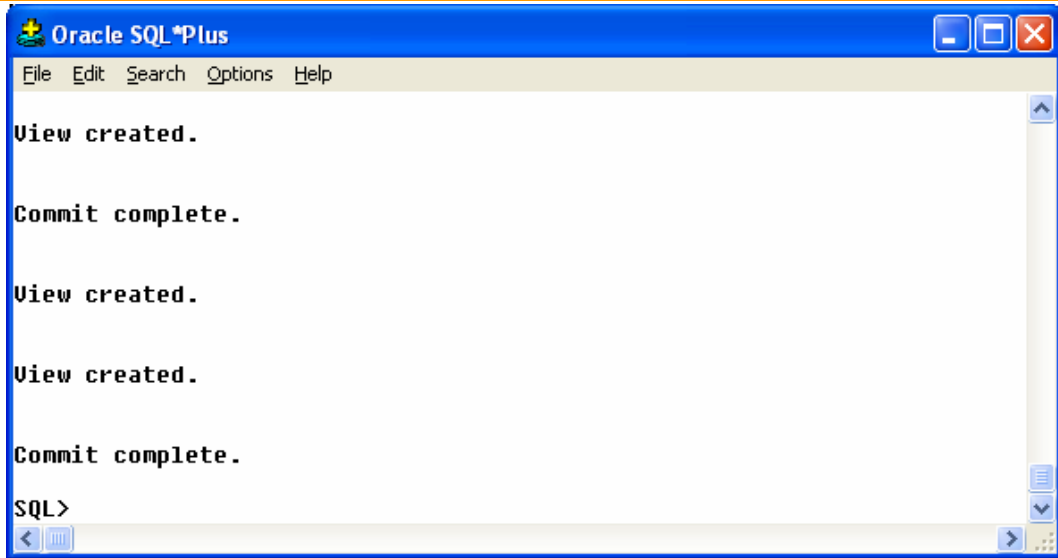
Executing the Scripts in a Batch Process

The DataSplice scripts for Oracle can be executed in a batch process. This is the preferred method because it simplifies the number of commands that need to be executed. To execute the scripts in a batch process, follow these steps:

- Execute the `max411_scripts.sql` script file.
 - If the `Scripts` folder was copied to `C:\temp`, the command to execute the script would be `@c:\temp\scripts\max411_scripts.sql ;`.



- Executing the `max411_scripts.sql` script file automatically executes the following list of scripts in turn:
 - `dsutility.plsql`
 - `equipment.plsql`
 - `inventory.plsql`
 - `workorder1.plsql`
 - `workorder2.plsql`
 - `workplans.plsql`
 - `tooltrans.plsql`
 - `dsviews.plsql`
 - `dsusers.plsql` - This script is optional and will not be executed by default. The `max411_scripts.sql` file can be edited to remove the comment markers on the last two lines if this script is intended to run. See the explanation in the **Pass Through Authentication Considerations** section below for more information.
- If an error is encountered during the script execution, refer to the details of the error message and consult with the Oracle documentation to identify the cause. If the script execution completes successfully, SQL Plus will return to the command prompt.



Executing the Scripts Individually

If desired, the scripts can be executed individually. The only conditions are that the `dsutility.plsql` script is executed first, and that the execution of `workorder1.plsql` precedes that of `workorder2.plsql`.

To execute a script individually, enter the following two commands in Oracle SQL Plus:

```

connect
<schema_owner>/<schema_owner_password>@<oracle_tns>;
start <directory_path>\dsutility.plsql;

```

Where the following information is valid:

- **<schema_owner>** - The user name of the CMMS schema owner. This is typically *maximo*.
- **<schema_owner_password>** - The password corresponding to the given user name.
- **<oracle_tns>** - The database name, as referenced in the TNS listing file. Depending on the version of Oracle in place, the `tnsnames.ora` file may be located at `C:\oracle\ora92\network\ADMIN` or a similar location.
- **<directory_path>** is the actual directory path to the `dsutility.plsql` file, such as `C:\temp\scripts`.

This process can be repeated in the same manner for the remaining scripts.

Pass Through Authentication Considerations

The last script, `dsusers.plsql`, is optional. It is only necessary to use if the **Pass Through Authentication** option is enabled. **Pass Through Authentication** is a

connection profile option in the DataSplice Administration Client to determine the credentials passed to the database. If the **Pass Through Authentication** option is enabled, the credentials of the logged-in user on the Remote Client will be passed to the database. If the option is not enabled, the user name and password specified in the connection profile will be passed to the database. For additional information about the **Pass Through Authentication** setting, please see the [ADO.NET Data Source Plug-in Configuration](#) section of the [DataSplice Administration Client manual](#).

Note: If the schema owner is not *maximo*, the `dsusers.plsql` script will need to be modified to use the correct schema owner prefix. After the `dsusers.plsql` script has been successfully executed, the **DS_USER** role can be granted to the desired set of CMMS users. The command to grant the **DS_USER** role to a CMMS user would resemble the following:

```
GRANT DS_USER to CMMS_USER1;
```

See the contents of the `dsusers.plsql` script for an example SQL query for generating a script file of **GRANT** statements using the **SPOOL** option.

Additional Information

A `readme.txt` file is included within the `Scripts` folder. This file contains additional information and examples that may be helpful during the script execution process.

Installing the DataSplice Add-on Package for SQL Server

To install the DataSplice add-on package for MAXIMO® 4.x on SQL Server, first obtain the `DataSplice3_Max4x_SqlServer_AddOn.zip` file. This file can be found by logging in to <http://www.datasplice.com/>. Upon successful login, the customer downloads page is displayed, with the list of available files. The file of interest is titled as `DataSplice 3.0 MAXIMO 4.x Add-on Package for SQL Server`.

Once the file is downloaded, unzip it to reveal the following two folders:

- `Storage` - Contains the views for this package.
- `Scripts` - Contains the corresponding scripts for this package.

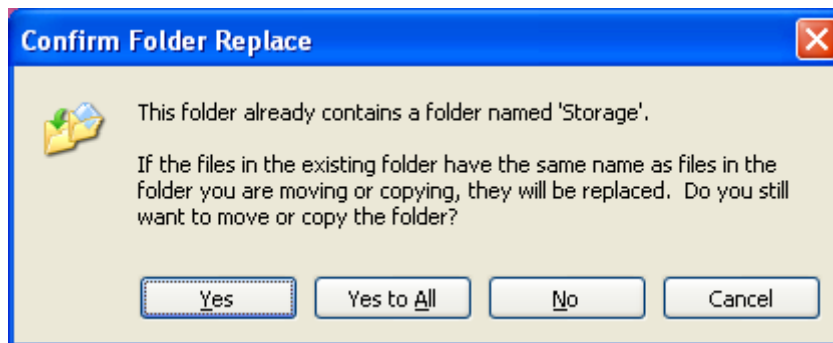
The use of these two folders is described in detail in the following two steps that are required to successfully install the add-on package:

- [Installing the DataSplice Views for SQL Server](#)
- [Executing the DataSplice Scripts for SQL Server](#)

Installing the DataSplice Views for SQL Server

The `Storage` folder contained within the add-on package installation zip file has the required DataSplice views for SQL Server. To install these views, follow these steps:

- Ensure that the DataSplice Server program is not currently running. If it is, shut it down.
- Copy the `Storage` folder included in the add-on package installation zip file into the DataSplice installation directory. By default, this directory path is `C:\Program Files\DataSplice3`.
- If prompted to overwrite the existing folder of the same name, choose **Yes to All**.



This copies the appropriate `Storage` folder contents, including the DataSplice views, with the correct sub-directory structure in place. The next time the DataSplice Server is launched, it will recognize these views.

Executing the DataSplice Scripts for SQL Server

Executing the DataSplice scripts for SQL Server implements the necessary database views, packages, and procedures to allow the DataSplice views to successfully communicate with the MAXIMO® database. In preparation of the script execution, perform the following steps:

- Copy the `Scripts` folder included in the add-on package zip file to a convenient location, such as `C:\temp`.
- Log in to SQL Query Analyzer.
 - **SQL Server** - The database to connect to.
 - **Login name** - The user name to connect with. This should be the database owner or system administrator, such as `sa`.
 - **Password** - The password corresponding to the given user name.

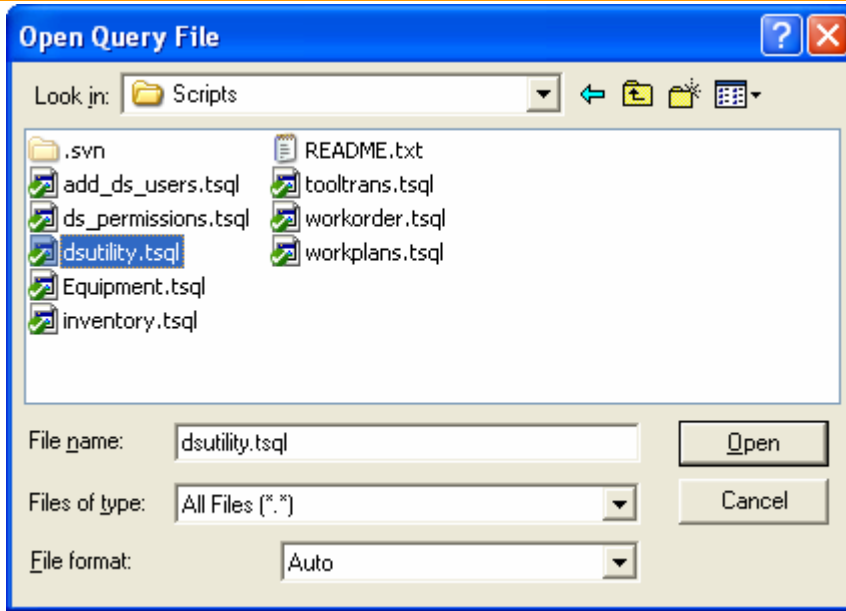


- Click **OK**.

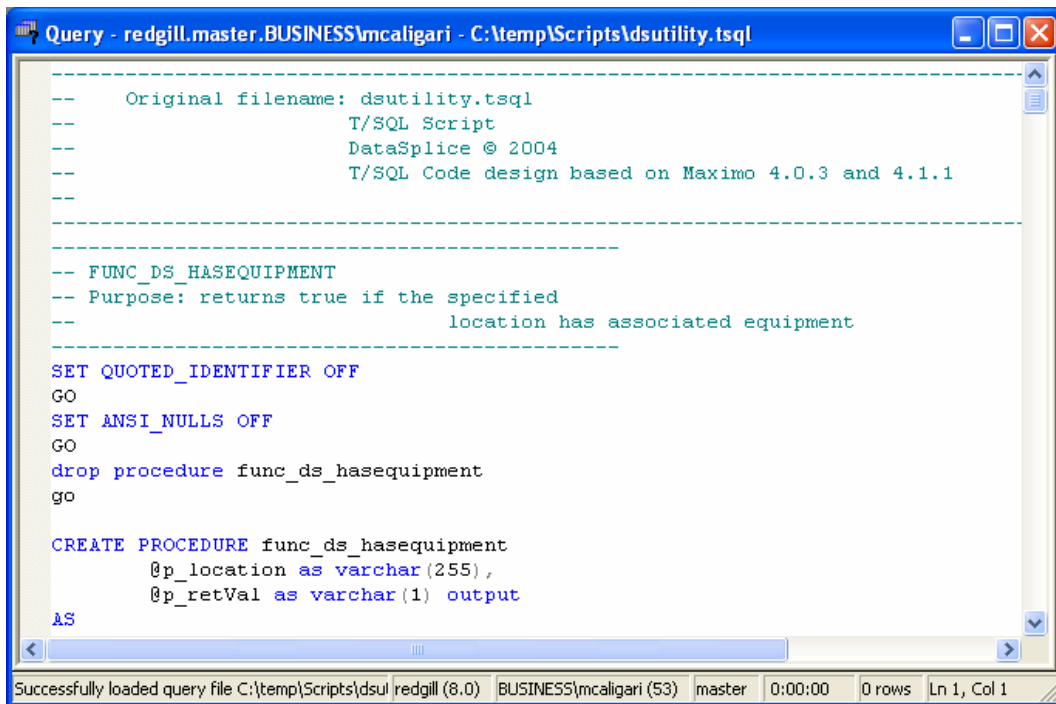
Executing the Scripts Individually


The script files for SQL Server should be executed individually. To execute a script for SQL Server:

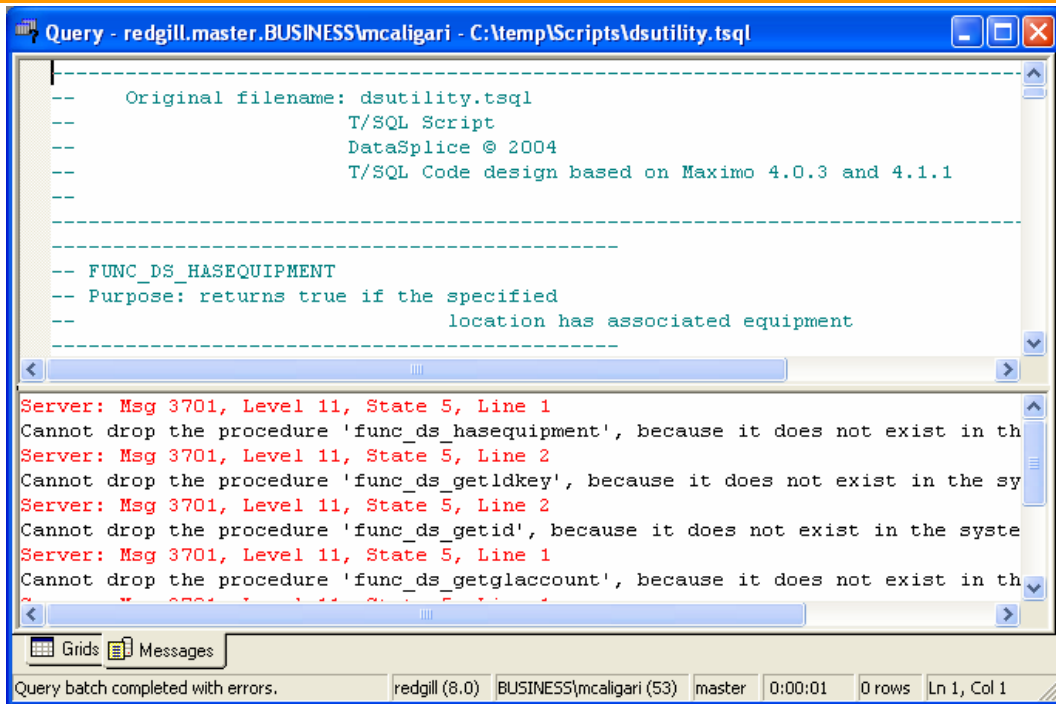
- Click the **Load SQL Script** button .
- In the resulting dialog box, select the script to execute and click **Open**.



- The script contents are then displayed in the query window.



- To run the script, click the **Execute Query** button .
- The first time each script is executed, it is normal to encounter a "Cannot drop" object error.



```

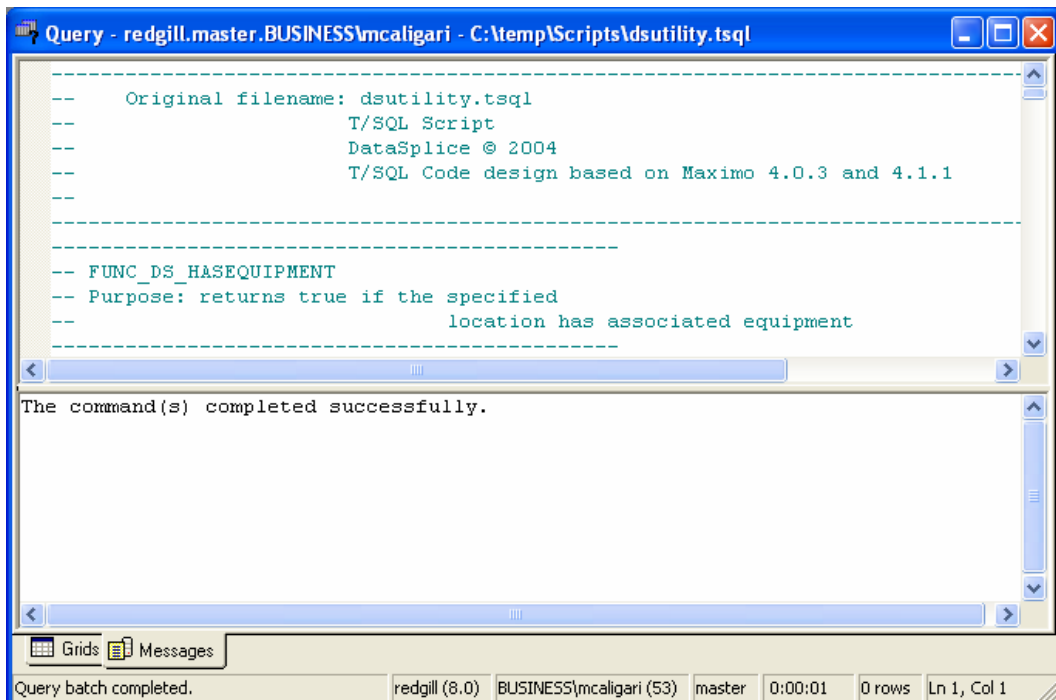
Query - redgill.master.BUSINESS\mcaligari - C:\temp\Scripts\dsutility.tsq
-----
-- Original filename: dsutility.tsq
-- T/SQL Script
-- DataSplice © 2004
-- T/SQL Code design based on Maximo 4.0.3 and 4.1.1
-----

-- FUNC_DS_HASEQUIPMENT
-- Purpose: returns true if the specified
--           location has associated equipment
-----

Server: Msg 3701, Level 11, State 5, Line 1
Cannot drop the procedure 'func_ds_hasequipment', because it does not exist in th
Server: Msg 3701, Level 11, State 5, Line 2
Cannot drop the procedure 'func_ds_getldkey', because it does not exist in the sy
Server: Msg 3701, Level 11, State 5, Line 2
Cannot drop the procedure 'func_ds_getid', because it does not exist in the syste
Server: Msg 3701, Level 11, State 5, Line 1
Cannot drop the procedure 'func_ds_getglaccount', because it does not exist in th
-----
Grids Messages
Query batch completed with errors. redgill (8.0) BUSINESS\mcaligari (53) master 0:00:01 0 rows Ln 1, Col 1

```

- These errors occur because the scripts have been set up to drop objects before they are recreated. Since it is the first time running the scripts, there are no objects to initially drop. The scripts will run successfully the first time, even though the error is generated. If the scripts are executed again, which is not required, it should complete without any errors.



```

Query - redgill.master.BUSINESS\mcaligari - C:\temp\Scripts\dsutility.tsq
-----
-- Original filename: dsutility.tsq
-- T/SQL Script
-- DataSplice © 2004
-- T/SQL Code design based on Maximo 4.0.3 and 4.1.1
-----

-- FUNC_DS_HASEQUIPMENT
-- Purpose: returns true if the specified
--           location has associated equipment
-----

The command(s) completed successfully.
-----
Grids Messages
Query batch completed. redgill (8.0) BUSINESS\mcaligari (53) master 0:00:01 0 rows Ln 1, Col 1

```

- This process can be repeated in the same manner for the remaining scripts. The scripts should be executed in the following order:
 - `dsutility.tsq`
 - `equipment.tsq`
 - `inventory.tsq`
 - `workorder.tsq`
 - `workplans.tsq`
 - `tooltrans.tsq`
 - `ds_permissions.tsq` - This script is optional. See the explanation in the **Pass Through Authentication Considerations** section below for more information.
 - `add_ds_users.tsq` - This script is optional. See the explanation in the **Pass Through Authentication Considerations** section below for more information.

Pass Through Authentication Considerations

The last two scripts, `ds_permissions.tsq` and `add_ds_users.tsq`, are optional. They are only necessary to use if the **Pass Through Authentication** option is enabled. **Pass Through Authentication** is a connection profile option in the DataSplice Administration Client to determine the credentials passed to the database. If the **Pass Through Authentication** option is enabled, the credentials of the logged-in user on the Remote Client will be passed to the database. If the option is not enabled, the user name and password specified in the connection profile will be passed to the database.

For additional information about the **Pass Through Authentication** setting, please see the [ADO.NET Data Source Plug-in Configuration](#) section of the [DataSplice Administration Client manual](#).

Additional Information

A `readme.txt` file is included within the `Scripts` folder. This file contains additional information and examples that may be helpful during the script execution process.

Related Administration Client Areas

Once the DataSplice MAXIMO® 4.x add-on package is installed, its functionality is available within the Administration Client. The plug-in is utilized in the Administration Client in the following areas.

- [Using existing MAXIMO® 4.x domains for user and group authentication](#)
- [Binding parameters in event chains](#)
- [Defining required system-level attributes](#)