Mobile Inspection Software by Mi-Corporation

Installation Guide

Contents

Introduction

This guide covers the installation and preliminary configuration of the Mobile Inspection Software by Mi-Corporation (MISM). It is designed to provide a walkthrough of the installation process to the point where the system is accessible. Further configuration of specific features will require utilization of help documents provided throughout the installation. If at any point you need further assistance, please contact Mi-Corporation Technical Support at support@mi-corporation.com

Prerequisites

Operating System

MISM may be installed on the following operating systems:

- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2

Virtual machines are supported.

Database Server

MISM requires connection to a SQL Server database server. It is not required that this server resides on the same virtual or physical server as the MISM application software, but a connection between the two must be available.

Supported versions of SQL Server include:

- SQL Server 2008 R2
- SQL Server 2012
- SQL Server 2014

MISM has no specific dependency on SQL Server edition, but your usage of SQL and its performance may dictate specific requirements.

Reporting Server

In order to utilize the reporting capabilities inherent in MISM, an instance of SQL Server Reporting Services must be available. This instance must have access to the SQL Server instance where the MISM database resides.

Mi-Enterprise Apps or Mi-Forms Server

An instance of version 10.0 or later Mi-Enterprise Apps or Mi-Forms Server is required for the purposes of authentication in the MISM server. It is not required that this server resides on the same virtual or physical server as the MISM application software, but a connection between the two must be available.

Installation

MISM is distributed as a single file executable designed to install all components of the system. You should be provided with a file named something like:

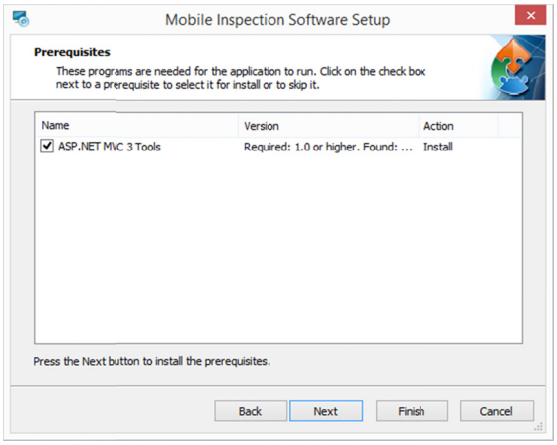
Mobile Inspection Software by Mi-Corporation.exe

As an administrator, double click this file on the machine on which you intend to install the MISM application.

Bundled Prerequisites

It is possible that the software will detect missing prerequisite software. If so you will be presented with a screen similar to the one below:

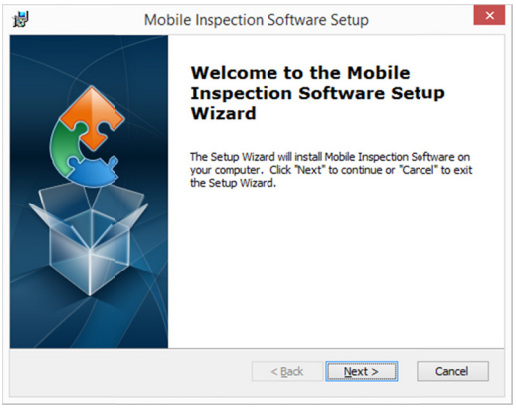
Clicking the “Next” button will advance to the bundled prerequisite installation dialog as shown below:



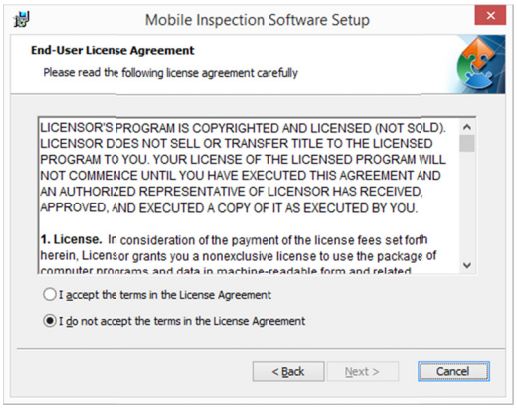
Allow all of the necessary bundled prerequisites to install to completion.

Installation Wizard

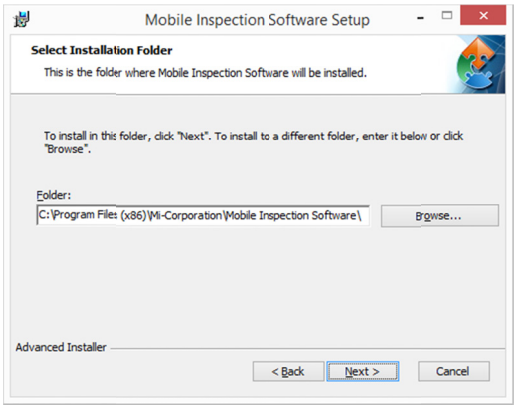
After completing any necessary bundled prerequisite steps, you will be taken to the installation wizard. The first screen of this wizard is shown below:



After clicking “Next”, you will be prompted to review the license agreement as shown below:



Once accepting the agreement and clicking “Next”, you will be prompted for an installation location for resources related to MISM as shown below:



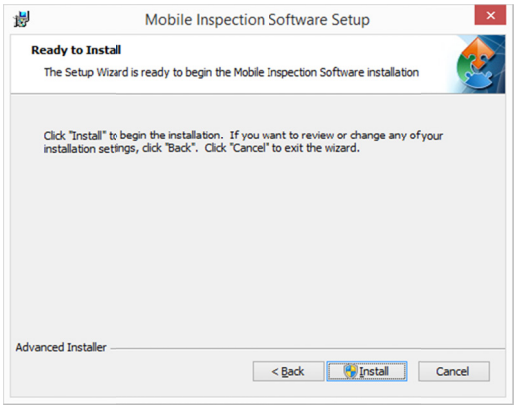
The default location is as follows:

C:\Program Files (x86)\Mi-Corporation\Mobile Inspection Software

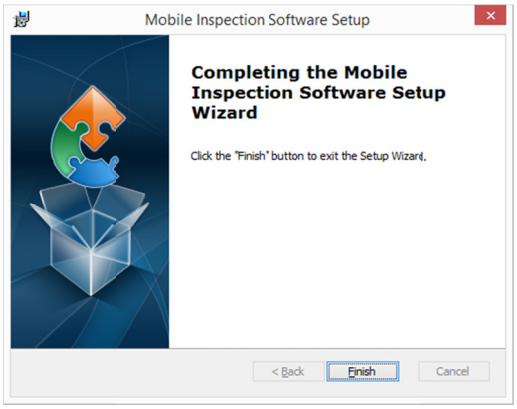
Note that while some resources will be installed in this location, the MISM server resources will be installed underneath your web root folder in a folder named *MISM*. On typical server installations this means that the full path for the web server resources for MISM will be:

C:\inetpub\wwwroot\mism

After selecting an installation location, you will be asked to confirm the installation as shown below:



Click the “Install” button and allow installation to complete. When done you will be shown a dialog indicating that installation was successful:



Click the “Finish” button and the installation wizard will close.

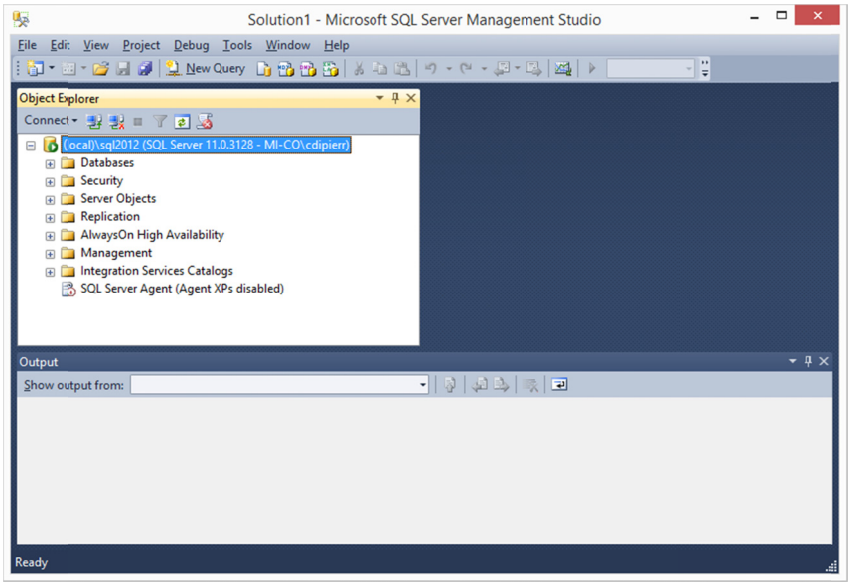
Configuration

After initially installing the MISM software, it is necessary to configure the database that will be used for data storage, the web application, and the reporting server.

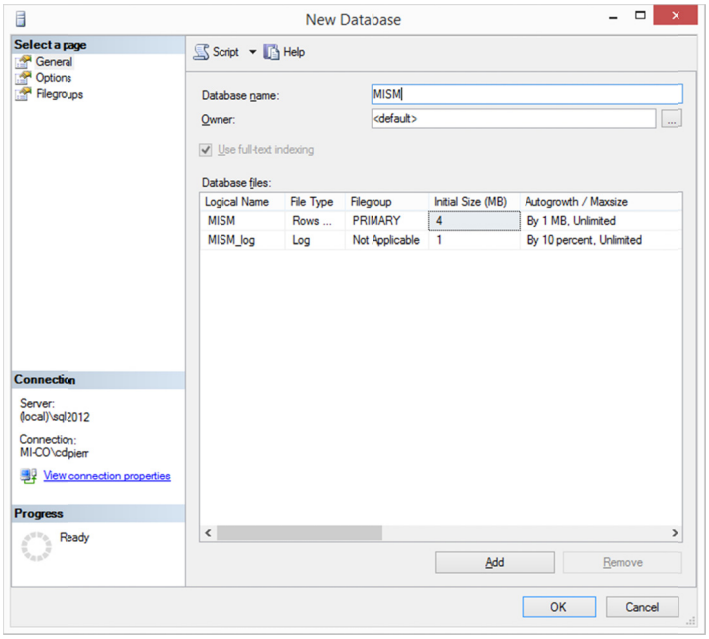
Database Configuration

The MISM software requires a SQL Server database for storage of collected inspection data and for visualization and display of that data. This database is not automatically created during the installation of the software. Please follow the steps outlined below to create this database and configure the application.

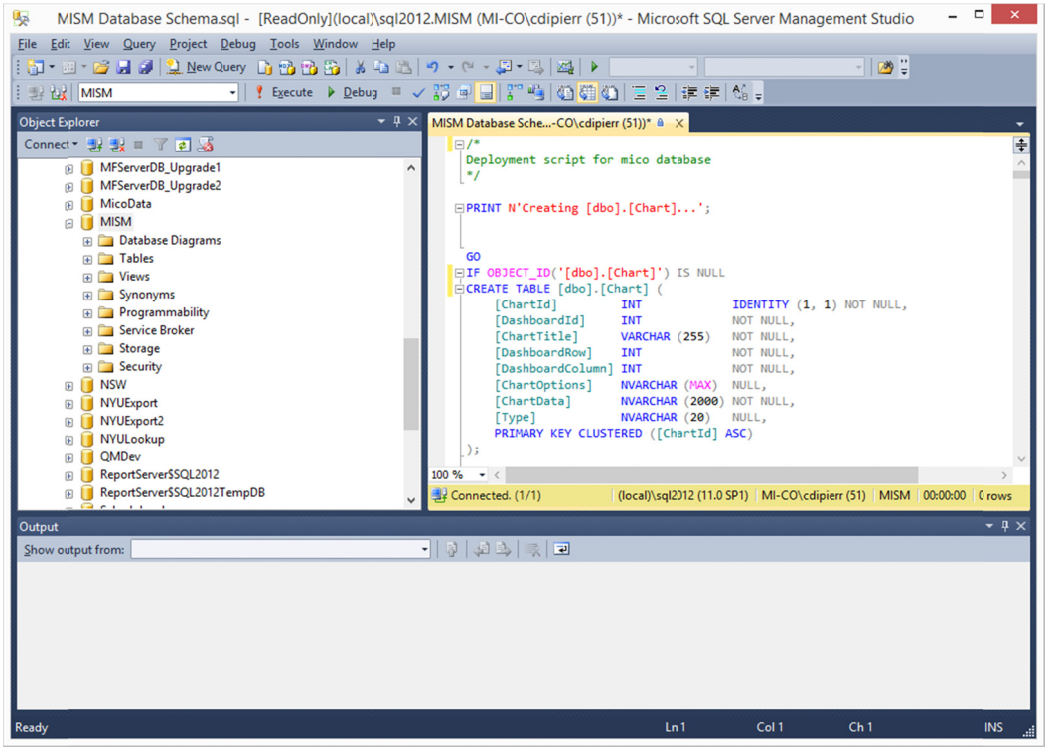
1) Connect to your database server instance using a tool such as SQL Server Management Studio. Note that this server instance may be hosted on the same machine as the MISM software, but this is not required.



2) Create a database on this instance in line with your data management practices of your organization. The specific name of the database does not matter, but be sure to remember the name so that it can be used for configuration of the MISM software.

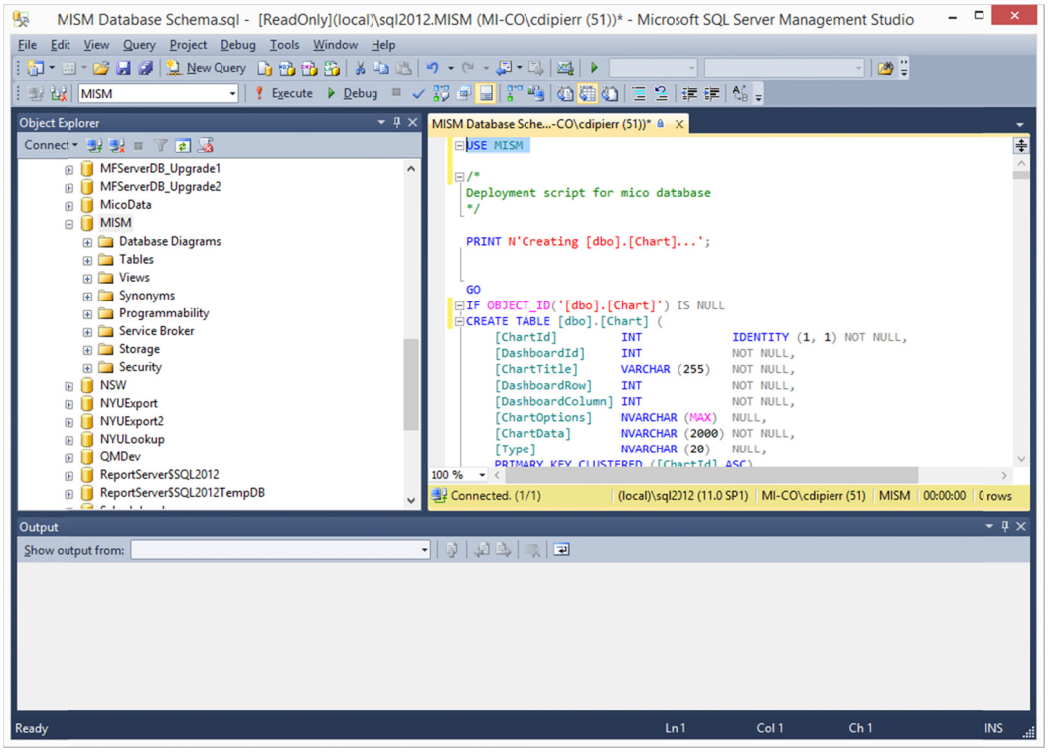


3) When installing the MISM software, a .sql file will be installed that creates the necessary structure of the database. Open this file in the query window editor. If you used default installation settings, the file will be located here:
C:\Program Files (x86)\Mi-Corporation\MISM\Database\MISM Database Schema.sql

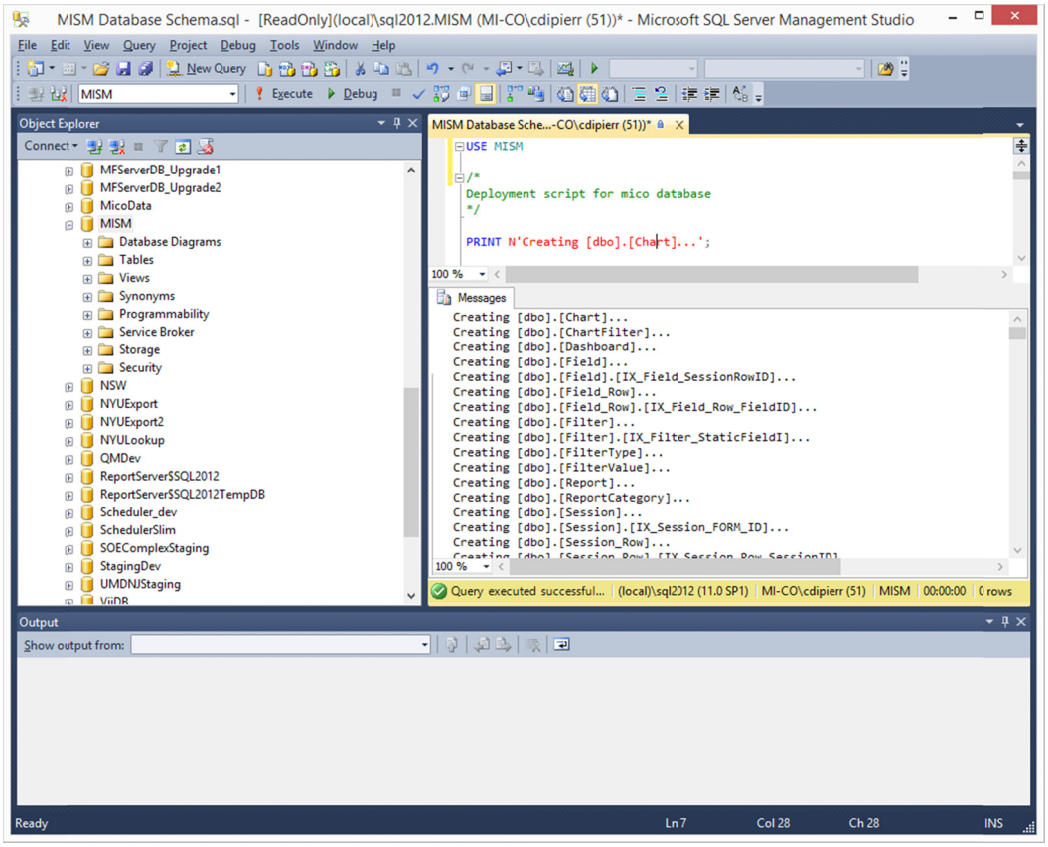


4) Insert a line above the initial comment in the query window editor that tells SQL Server Management Studio to use the appropriate database. The specific line is dependent on what

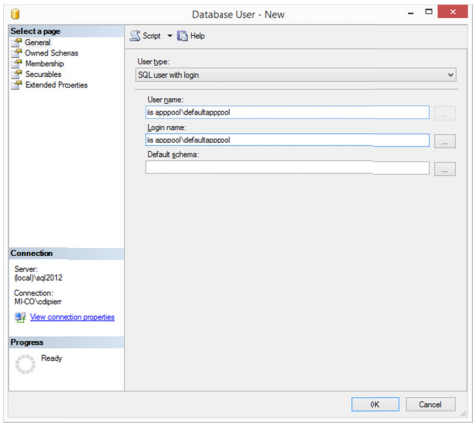
you named the database in step #2. For example if the database was named “MISM”, then the line should read:
USE MISM

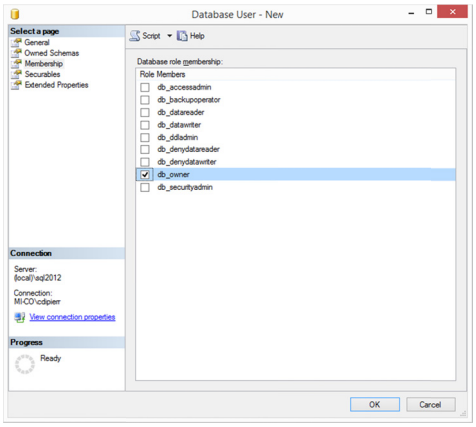


5) Click the “Execute” button to run the query. A series of diagnostic lines should be shown in the Messages window.

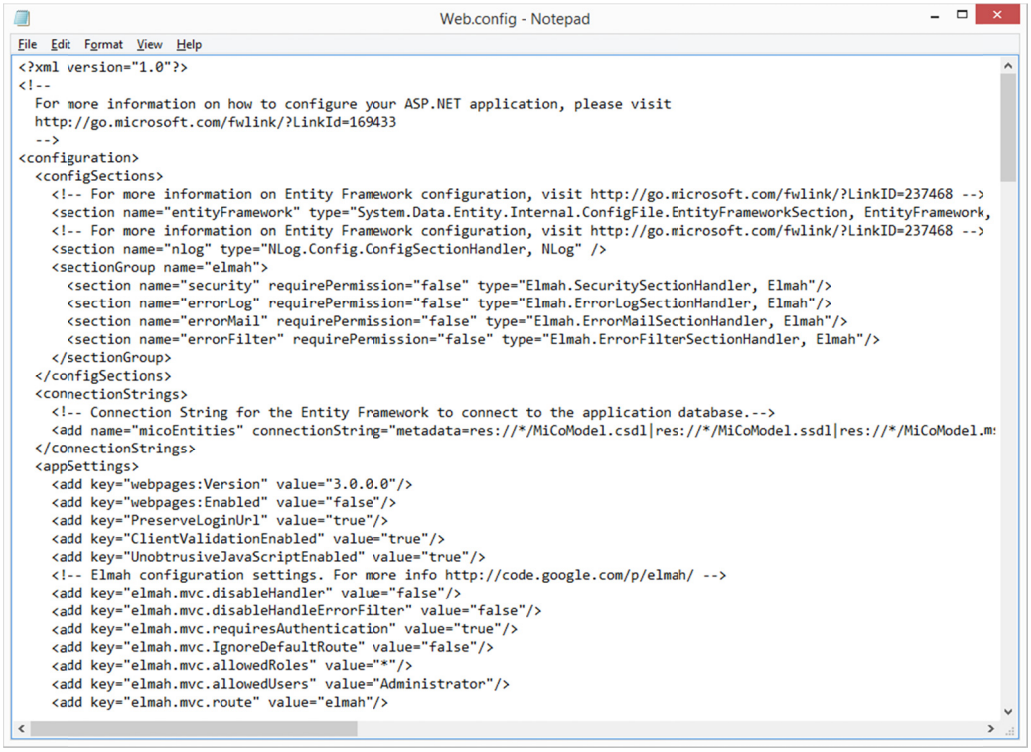


6) Add an appropriate user to the database such that the web application can access the database, insert data, and run stored procedures. The specifics of this will vary depending on your data security requirements. If you intend to use integrated Windows authentication, be aware that the MISM application will run under the identity of the application pool that is hosting the web app (DefaultAppPool by default). The screenshot below shows granting this permission for such an identity, but the specifics of your setup may require other steps not detailed here.





7) On the application server where the MISM software was installed, locate the file named web.config in the web installation folder and open it in a text editor. In typical installations this file will be located at:
C:\inetpub\wwwroot\mism\web.config



8) Locate the line that reads:

<add name="micoEntities"
connectionString="metadata=res:///MiCoModel.csdl|res://*/MiCoModel.ssdl|res://*/MiCoModel.msl;provider=System.Data.SqlClient;provider connection string="data source=(local);initial catalog=mismdb;Integrated Security=SSPI;MultipleActiveResultSets=True;App=EntityFramework""*
providerName="System.Data.EntityClient"/>

9) Replace the highlighted section above with a connection string that is suitable for connecting to your database created above.

For instance, if the database server's name is "Server1", the name of the database is "MISM" and you're using integrated security, the line should read as follows:

<add name="micoEntities"
connectionString="metadata=res:///MiCoModel.csdl|res://*/MiCoModel.ssdl|res://*/MiCoModel.msl;provider=System.Data.SqlClient;provider connection string="data source=Server1;initial catalog=MISM;Integrated Security=SSPI;MultipleActiveResultSets=True;App=EntityFramework""*
providerName="System.Data.EntityClient"/>

If instead you are using SQL Server authentication, the connection string may be similar to:

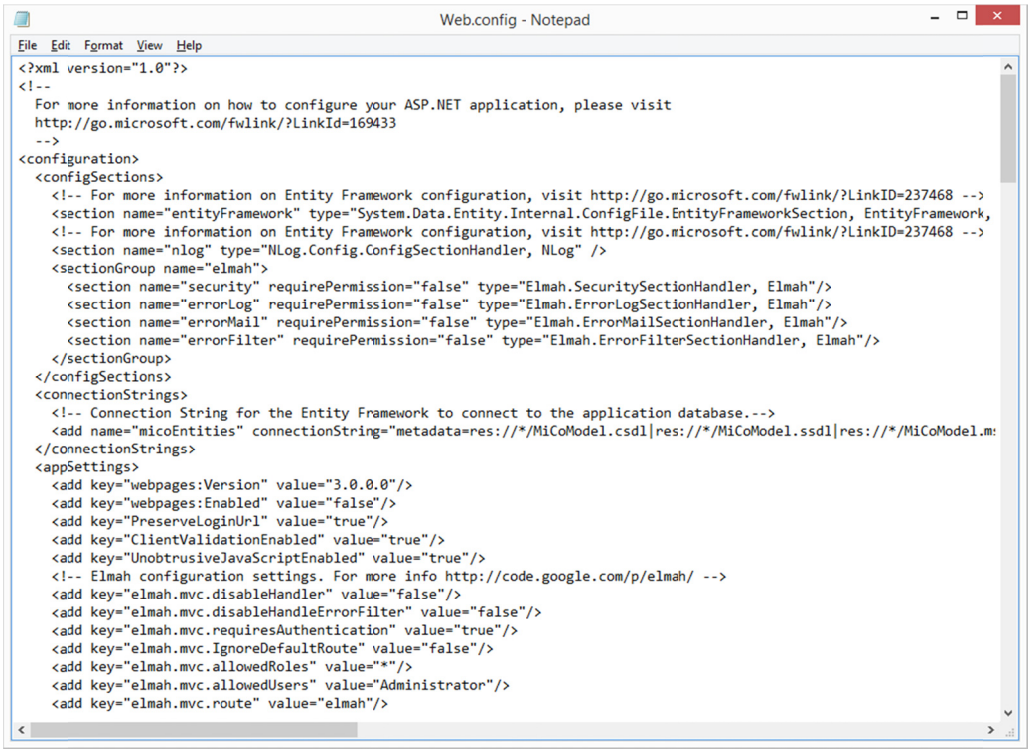
<add name="micoEntities" connectionString="metadata=res:///MiCoModel.csdl|res://*/MiCoModel.ssdl|res://*/MiCoModel.msl;provider=System.Data.SqlClient;provider connection string="data source=Server1;initial catalog=MISM;User=user;Password=pass;MultipleActiveResultSets=True;App=EntityFramework"" providerName="System.Data.EntityClient"/>*

10) Save the web.config file in your text editor.

Authentication Configuration

The MISM software requires an instance of a Mi-Forms or Mi-Enterprise Apps Server to use for authentication and authorization. This server must be version 10 or later and must be accessible to the MISM server via HTTP(S) protocols. Please follow the steps outlined below to configure the application.

1) On the application server where the MISM software was installed, locate the file named web.config in the web installation folder and open it in a text editor. In typical installations this file will be located at:
C:\inetpub\wwwroot\mism\web.config



2) Locate the lines in this file that read as follows:

<!--the customer name as it will be authenticated by the Authorization Web Service.-->
<add key="customername" value="Inspection"/>

3) Edit the value highlighted above to indicate the customer name of a customer setup on your Mi-Forms or Mi-Enterprise Apps Server. For example if the name of the customer is “Sierra Creek”, edit the lines to read:

<!--the customer name as it will be authenticated by the Authorization Web Service.-->
<add key="customername" value="Sierra Creek"/>

4) Locate the lines in this file that read as follows:

<!-- The Authentication Web Service endpoint. It is used by the Membership Provider to authenticate users. -->
<endpoint address="http://localhost/mfs/Services/AuthServices.asmx" binding="basicHttpBinding" bindingConfiguration="AuthServicesSoap" contract="AuthServices.AuthServicesSoap" name="AuthServicesSoap"/>

5) If the MISM software and the Mi-Forms or Mi-Enterprise Apps Server are located on the same machine then you do not need to change this line. If, however, the Mi-Forms or Mi-Enterprise Apps Server is located elsewhere, edit the highlighted section to indicate the appropriate connection URL. For instance, if your Mi-Forms or Mi-Enterprise Apps Server is located on a machine named “server2” and requires HTTPS, the lines would be edited as follows:

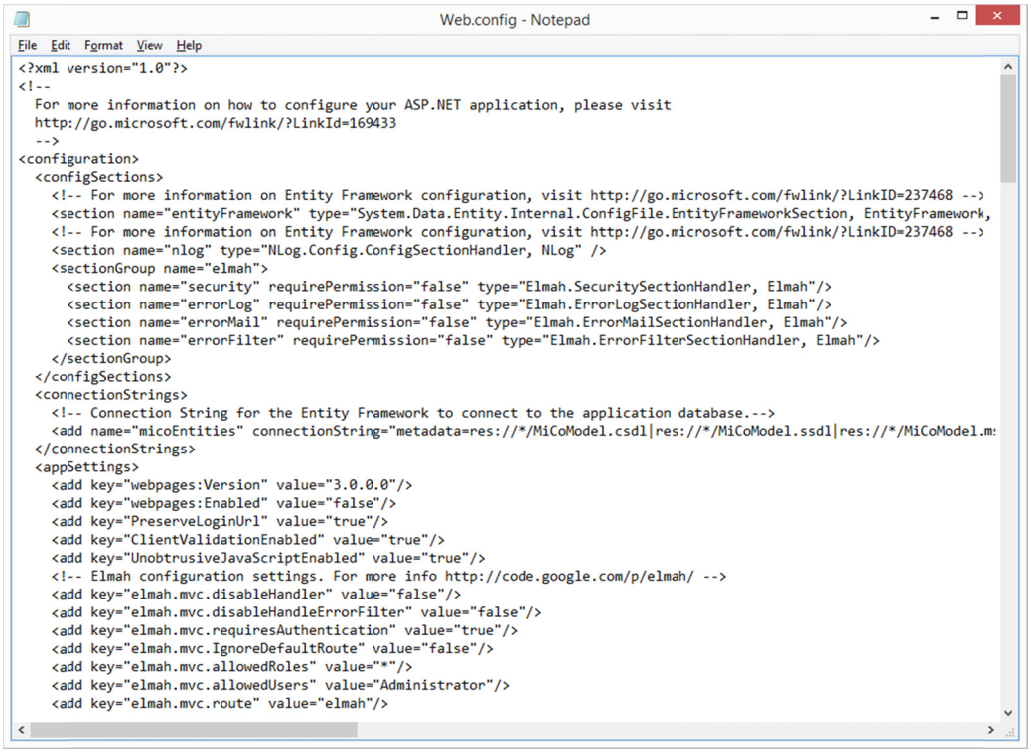
<!-- The Authentication Web Service endpoint. It is used by the Membership Provider to authenticate users. -->
<endpoint address="https://server2/mfs/Services/AuthServices.asmx" binding="basicHttpBinding" bindingConfiguration="AuthServicesSoap" contract="AuthServices.AuthServicesSoap" name="AuthServicesSoap"/>

6) Save the web.config file in your text editor.

Reporting Configuration

The MISM software requires an instance of SQL Server Reporting Services in order to utilize its reporting functionality. Please follow the steps outlined below to configure the application.

1) On the application server where the MISM software was installed, locate the file named web.config in the web installation folder and open it in a text editor. In typical installations this file will be located at:
C:\inetpub\wwwroot\mism\web.config



2) Locate the lines in this file that read as follows:

<!-- the address of the SSRS Reporting Services Web Service API. Usually it is http://myWebServerName/ReportServer. -->
<add key="Micoreportserver" value="http://localhost/ReportServer"/>

3) Edit the value highlighted above to indicate the actual URL of the report server as configured in your network. For example if the name of the report server is “Server3” and URL underneath this is “ReportingServer” edit the lines to read:

<!-- the address of the SSRS Reporting Services Web Service API. Usually it is http://myWebServerName/ReportServer. -->
<add key="Micoreportserver" value="http://server3/ReportingServer"/>

4) The MISM software will need to access the reporting server with credentials that allow viewing reports. This enables the currently logged in MISM user to view reports without being prompted for a separate set of login credentials that are required by the SSRS server instance. Locate the lines in the file that read as follows:

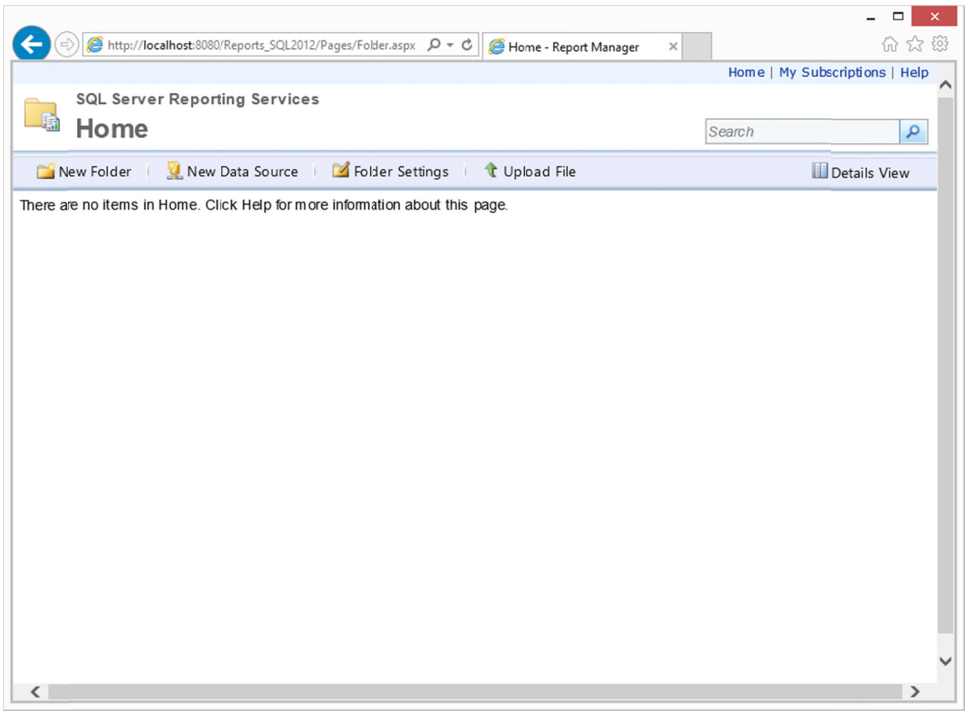
<!-- the user name of an NT account with permissions to access the Web Services. -->
<add key="Micousername" value="username"/>
<!-- the password for the NT account. -->
<add key="Micopassword" value="password"/>
<!-- the domain name for the NT accounts. This can be the machine name if it's a local account. -->
<add key="Micodomain" value="domain"/>

5) Edit the highlighted values to reflect the username, password and domain of a valid SSRS user. For instance if the user “bsmith” on the domain “sierracreek” with password “pass” were to be used, the lines would read:

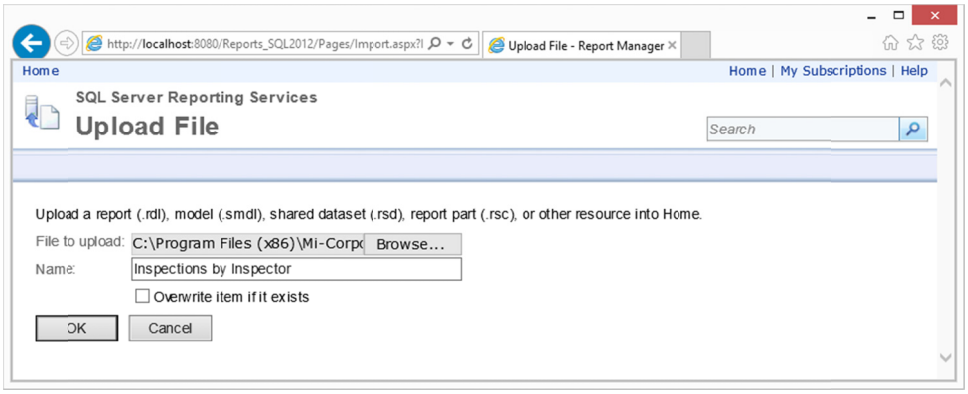
```
<!-- the user name of an NT account with permissions to access the Web Services. -->
<add key="Micousername" value="bsmith"/>
<!-- the password for the NT account. -->
<add key="Micopassword" value="pass"/>
<!-- the domain name for the NT accounts. This can be the machine name if it's a local account. -->
<add key="Micodomain" value="screek"/>
```

6) Save the web.config file in your text editor.

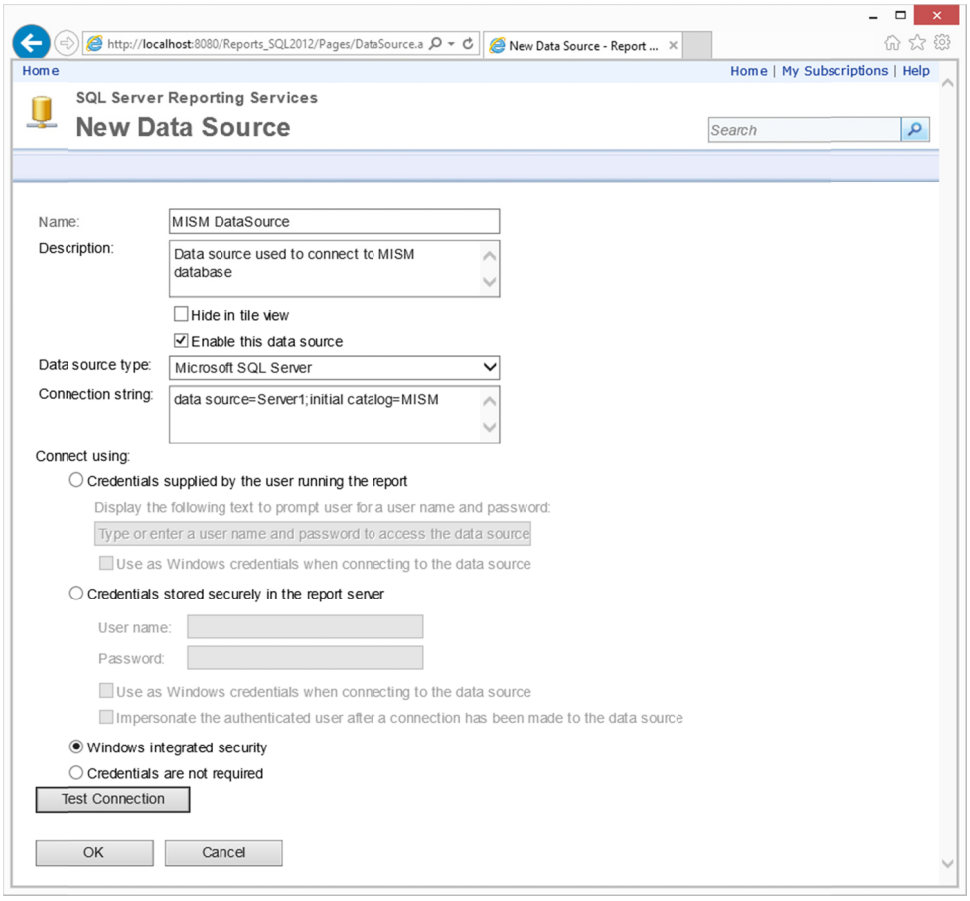
7) The MISM software comes with a sample report that you may upload to your SSRS server. To do so, first browse to your SSRS instance and login with credentials that will allow publishing a report:



8) Click the “Upload File” link and then browse for the report that is bundled with MISM. If you used default installation options, this report will be located at this location: *C:\Program Files (x86)\Mi-Corporation\MISM\Reports\Inspections by Inspector.rdl*

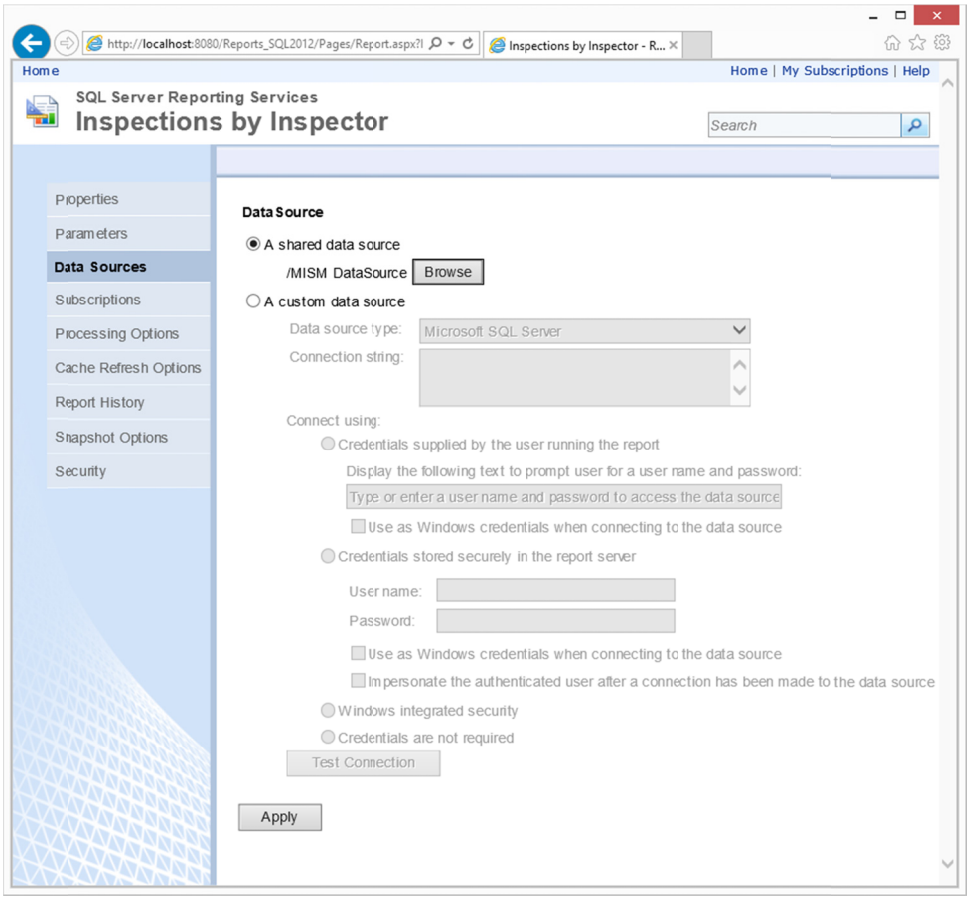


9) Create a new data source by clicking the “New Data Source” link and filling the data source with details that will allow it to connect to the database created in the database configuration section above. Note that the specifics of this data source will vary based on your database configuration and access methodologies and the image shown below indicates just one possible setup.



10) Configure the report to use the data source that was created by hovering over the report, clicking the downward pointing arrow and clicking “Manage” and then navigating to the Data

Sources tab. Check the “A shared data source” radio button and browse for the data source created above.



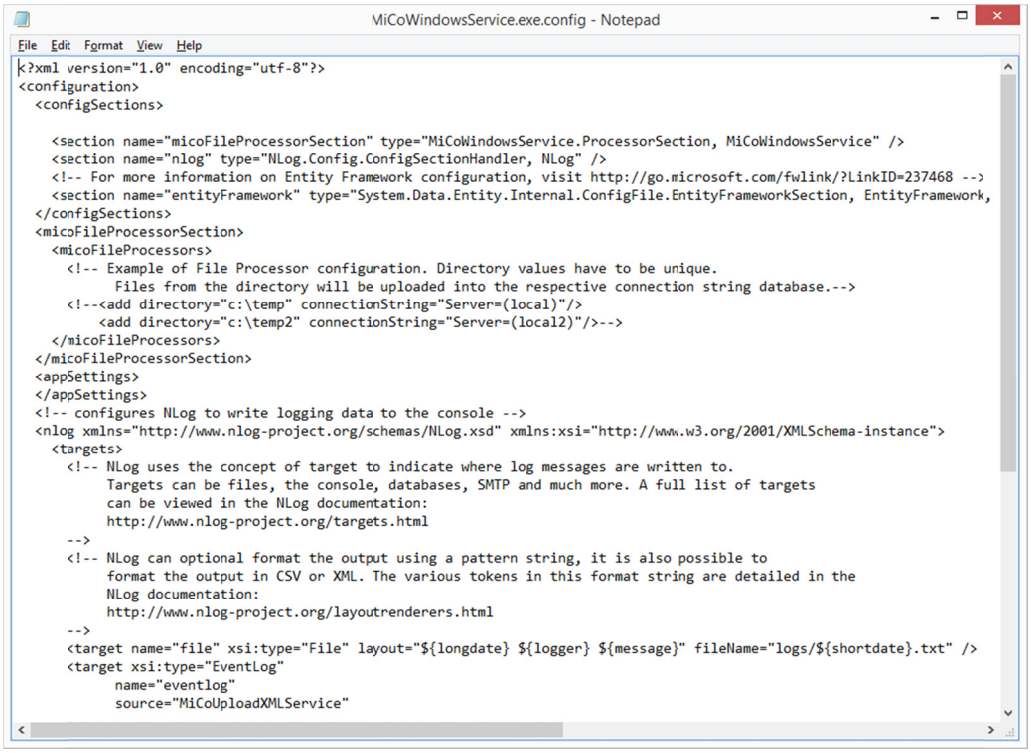
11) Click “Apply”.

Background Service Configuration

While it is possible for administrative users to directly upload exported form data to the MISM system through the web interface, it may instead be useful to configure automatic importing via a Windows service. The MISM software bundles such a service and may be configured as follows:

1) Using Windows Explorer, navigate to the Import Service installation folder. If you used default settings during install, this folder will be as follows:
C:\Program Files (x86)\Mi-Corporation\MISM\Import Service

2) Using a text editor, open the file MiCoWindowsService.exe.config



3) Locate the section of the file that looks like the lines below:

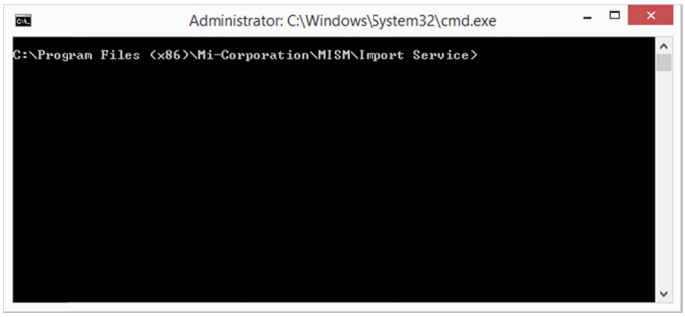
```
<micoFileProcessorSection>
  <micoFileProcessors>
    <!-- Example of File Processor configuration. Directory values have to be unique.
         Files from the directory will be uploaded into the respective connection string database.-->
    <!--<add directory="c:\temp" connectionString="Server=(local)"/>
        <add directory="c:\temp" connectionString="Server=(local)"/>-->
  </micoFileProcessors>
</micoFileProcessorSection>
```

4) This service is designed to allow for the specification of multiple MISM instances on a single server. In general, most configurations will only require a single file processor. Using the example SQL Server database configuration above and the expectation that form data files exist in the folder “c:\exports”, edit the lines highlighted above as follows:

```
<micoFileProcessorSection>
  <micoFileProcessors>
    <!-- Example of File Processor configuration. Directory values have to be unique.
         Files from the directory will be uploaded into the respective connection string database.-->
    <!--<add directory="c:\temp" connectionString="Server=(local)"/>
        <add directory="c:\temp" connectionString="data source=Server1;initial
catalog=MISM;Integrated Security=SSPI "/>-->
  </micoFileProcessors>
</micoFileProcessorSection>
```

5) Save this file in your text editor.

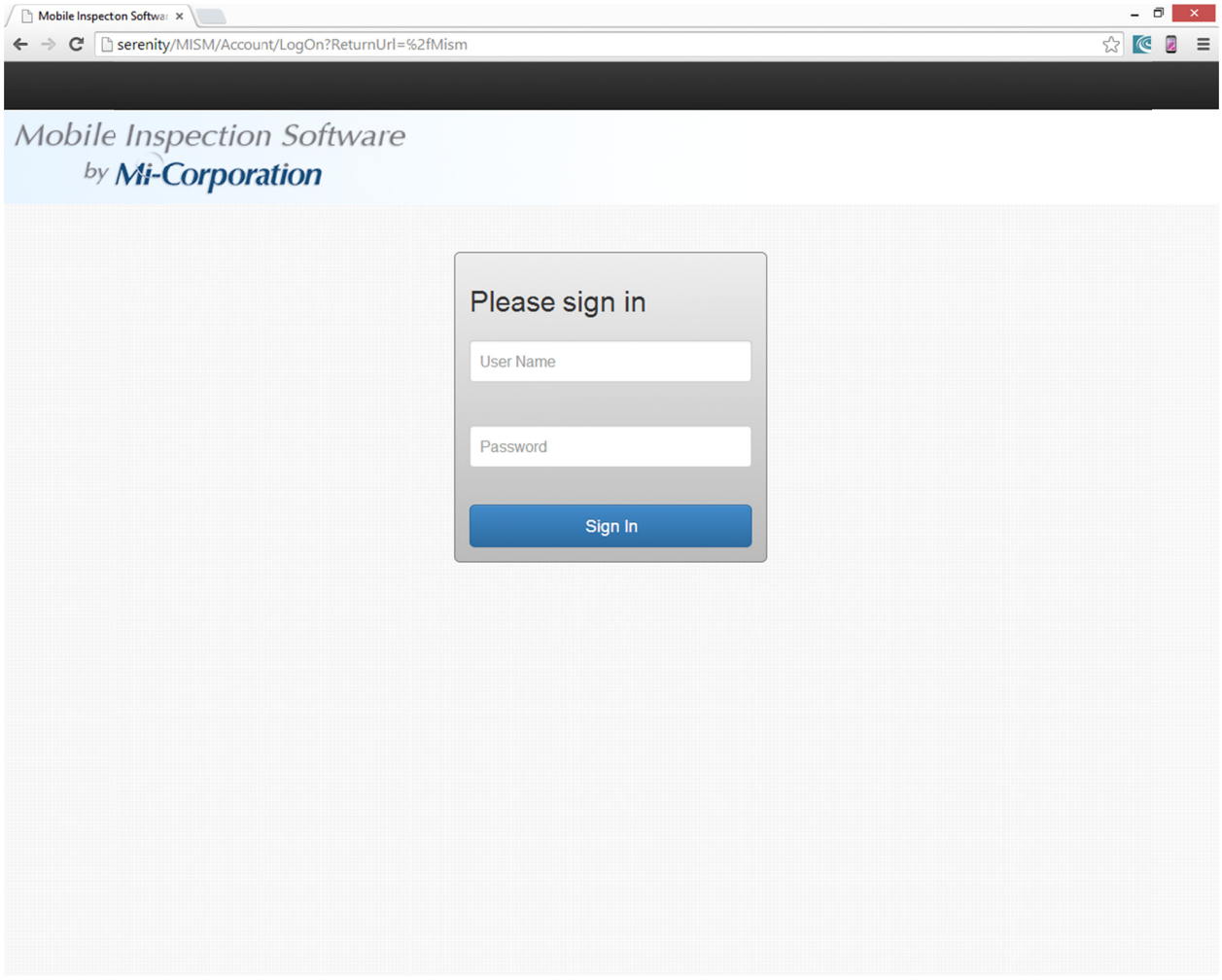
6) Open a command prompt with administrative privileges and navigate to the folder where the service is located.



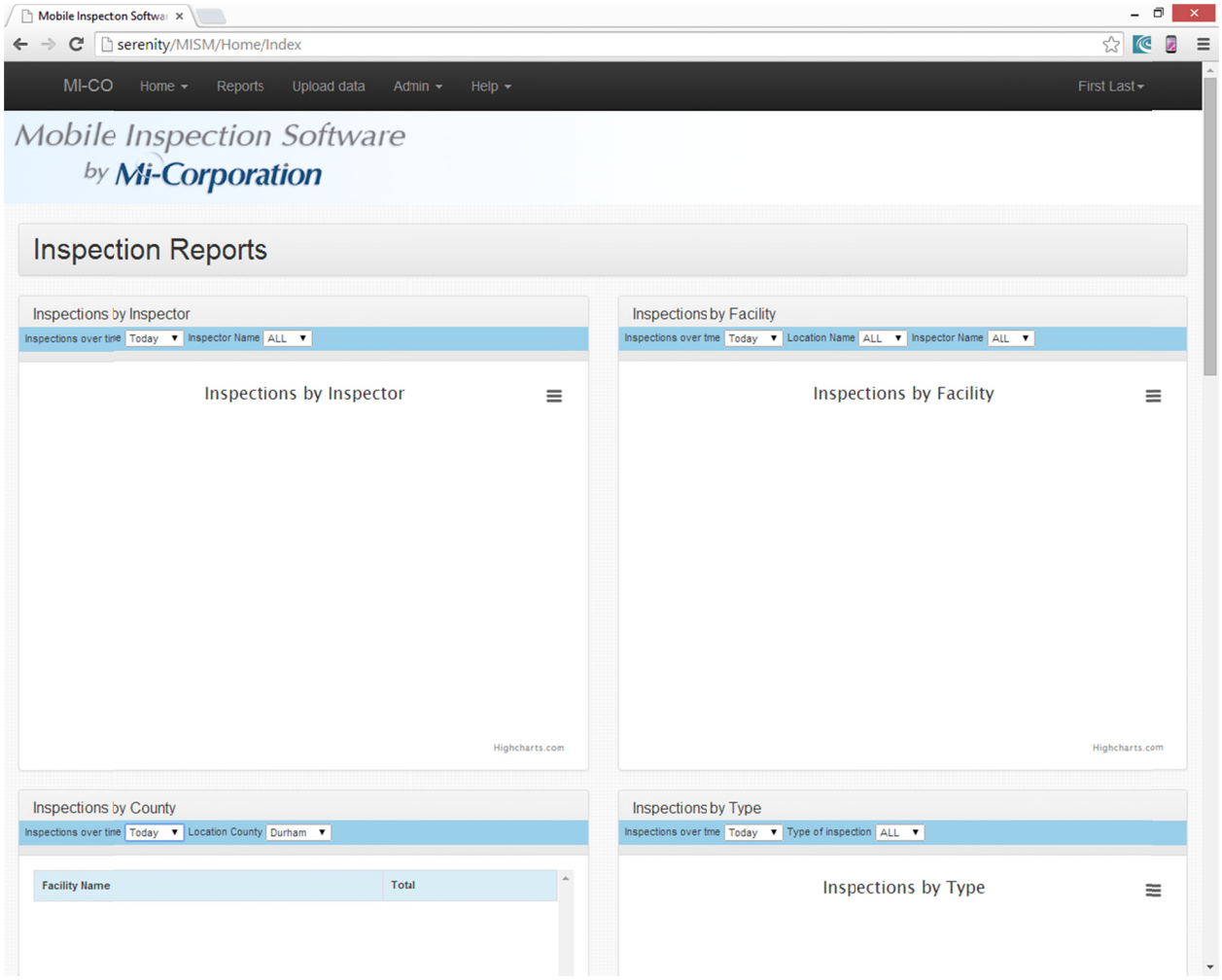
7) Run the batch file “install.bat”. A series of messages indicating success should be displayed.

Verification

After the configuration above, you may wish to verify your setup. To do so, first navigate to the URL where the MISM software is installed.



Login with a set of administrative credentials and you should see a screen similar to the one below. Note that it's normal not to see any charted data after initial installation.

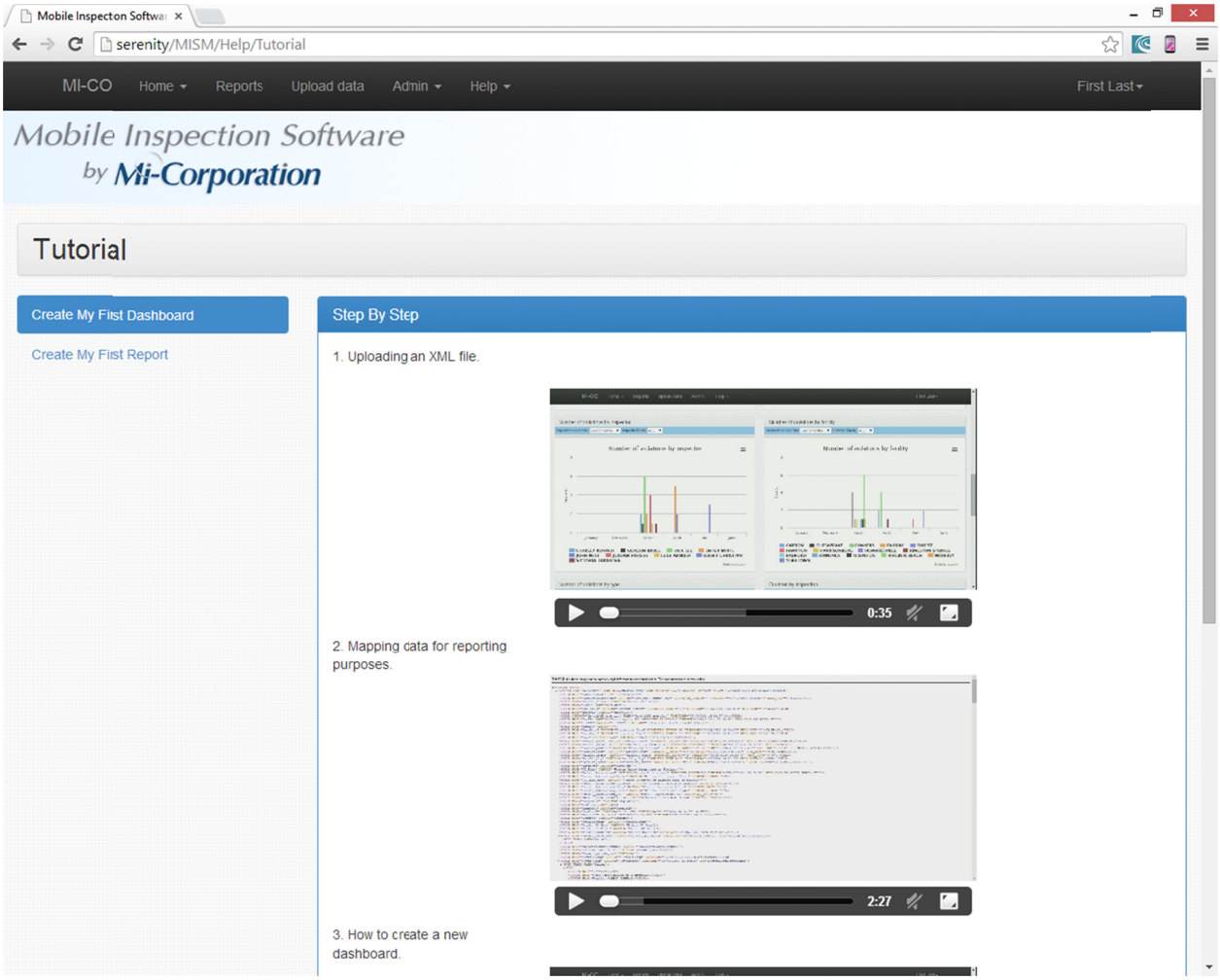

Mobile Inspecton Softwa
serenity/MISM/Home/Index
MI-CO
Home
Reports
Upload data
Admin
Help
First Last
Mobile Inspection Software
by Mi-Corporation
Inspection Reports
Inspections by Inspector
Inspections over time
Today
Inspector Name
ALL
Inspections by Inspector
Highcharts.com
Inspections by Facility
Inspections over time
Today
Location Name
ALL
Inspector Name
ALL
Inspections by Facility
Highcharts.com
Inspections by County
Inspections over time
Today
Location County
Durham
Facility Name
Total
Inspections by Type
Inspections over time
Today
Type of inspection
ALL
Inspections by Type

Help & Troubleshooting

The MISM Software includes a number of help and troubleshooting resources.

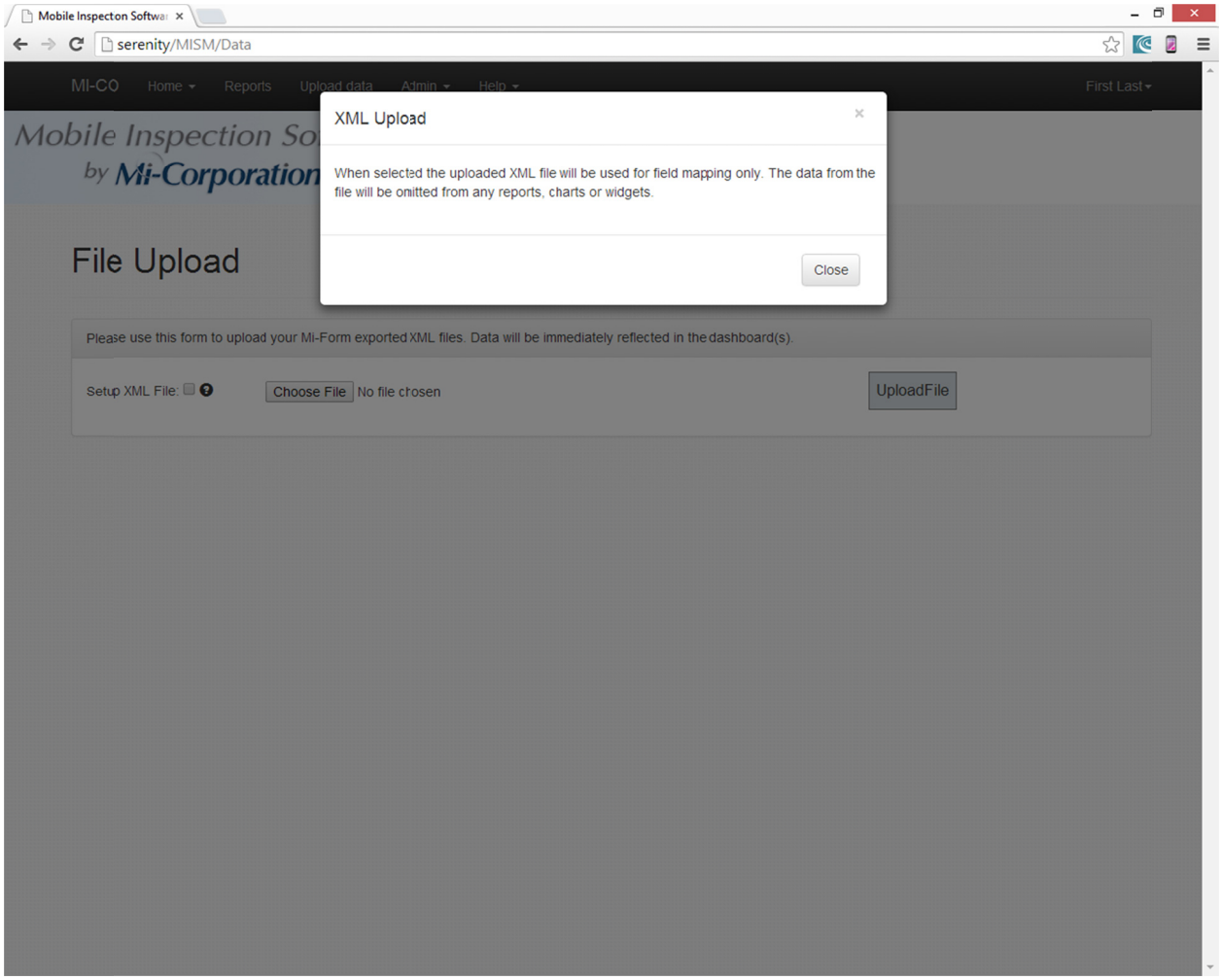
Tutorial Videos

The MISM software includes a series of helpful tutorial videos. You may access them by clicking on the “Help” menu in the top right of the web application and choosing “Tutorial”. This will provide access to a set of videos that describe uploading data, mapping reports, and creating dashboards.

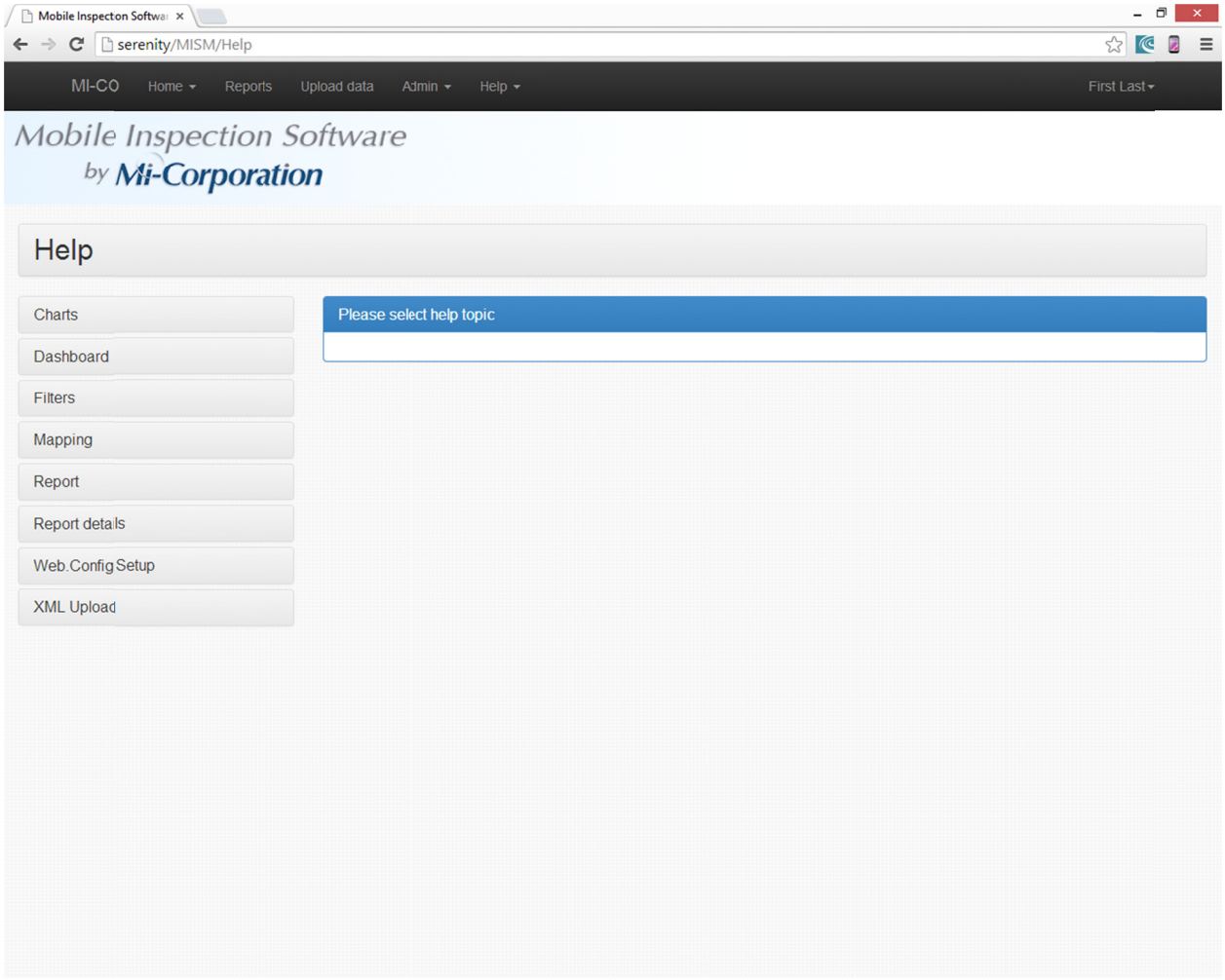


Help Topics

Anywhere you see a “?” in a black circle in the web application indicates that help guidance is available. Click on any one of these for details about how to use a specific feature.



You may also navigate to the “Help” menu in the top right and then click on “Help Topics” to see a full list of all available help topics.



Further Support

If you need further support, please visit Mi-Corporation's support website at:

http://support.mi-corporation.com/

Or please email support at:

support@mi-corporation.com