

DataSplice®

Mobile Computing

DataSplice Installation

Guide

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Introduction

Purpose

This document guides you through the installation process for the DataSplice Mobile Integration Suite. The software suite consists of the DataSplice Server, the Administration Client, and the Remote Client. Each component can be installed on a PC during the installation process. In addition, this guide explains the process of installing the DataSplice Remote Client application on a mobile device.

After the software has been installed, you will need to configure certain aspects of the software to fit your particular needs. This guide also details those initial configuration steps.

For additional information about the behavior of the different components of the DataSplice Mobile Integration Suite, please see the user manual for the corresponding component.

For additional documentation and support resources, please visit <http://support.datasplice.com>.

Version Information

The information in this guide pertains to DataSplice version **2.3.10.0**.

DataSplice Mobile Integration Suite Installation

To use the DataSplice Mobile Integration Suite, you must first follow the required installation and configuration steps. The sections listed below detail the installation process:

- **System Requirements**
- **Installing the DataSplice Mobile Integration Suite**

System Requirements

The following information details the system requirements for running the various components of the DataSplice Mobile Integration Suite.

Supported Operating Systems

The DataSplice Mobile Integration Suite supports the following operating systems:

- Microsoft Windows NT 4 (Workstation or Server) with service pack 6a
- Microsoft Windows 2000 (Professional, Server, or Advanced Server) with the latest Windows service pack and critical updates available from the Microsoft web site
- Microsoft Windows XP (Home or Professional)
- Microsoft Windows Server 2003 family
- Microsoft Terminal Server – DataSplice can be installed on Microsoft Terminal Server, but it may require significant effort to properly install the Microsoft XML parser

Hardware Requirements

Although the hardware required to run the DataSplice Mobile Integration Suite effectively is highly dependent on the number of client connections it needs to support, the following specifications are applicable to most implementations:

- 500 MHz processor (1 GHz recommended)
- 256 MB RAM (512 MB recommended)
- 200 MB of available hard disk storage (500 MB recommended)

Additional Required Components

The following additional software components are also required for correct operation of the DataSplice Mobile Integration Suite:

- Microsoft .NET Framework version 1.1 or newer
- Microsoft Data Access Components (MDAC) version 2.6 or newer
- Microsoft XML Core Services (MSXML) version 4.0 or newer
- Microsoft Internet Explorer version 5.01 or newer
- Microsoft ActiveSync version 3.6 or newer if manually installing the DataSplice Remote Client on mobile devices

Mobile Device Requirements

To effectively run the DataSplice Remote Client application on a mobile device, the following requirements must be met.

Supported Operating Systems

The mobile device must be running one of the following operating systems for the DataSplice Remote Client to be installed correctly:

- Pocket PC
- Pocket PC 2000
- Pocket PC 2002
- Pocket PC 2003 (a.k.a. Windows Mobile)
- Windows CE 2.11 or newer
- Windows CE .NET

Hardware Considerations

The hardware requirements of the mobile device can vary considerably, depending on whether the DataSplice Remote Client will be used in online or offline mode. In particular, storage space becomes more of an issue when the DataSplice Remote Client is being used in offline mode, as session data is being cached onto the device, rather than being stored on the DataSplice Server as it would be in online mode. The use of non-volatile storage media, such as an SD card, is recommended so data can persist if the mobile device is reset. The following specifications can be used as a good general guideline:

- 300 MHz ARM processor
- 32 MB ROM
- 64 MB RAM
- 32 MB capacity storage card if non-volatile storage is desired (64 MB recommended)

Networking

The DataSplice Mobile Integration Suite can be used in wireless networks or in regular Ethernet-based networks. In addition, the DataSplice Server can be accessed directly through an ActiveSync connection. The following network capabilities must be enabled and accessible for the DataSplice Mobile Integration Suite to function correctly:

- Port 4100 (or other port if other than default)
- TCP/IP

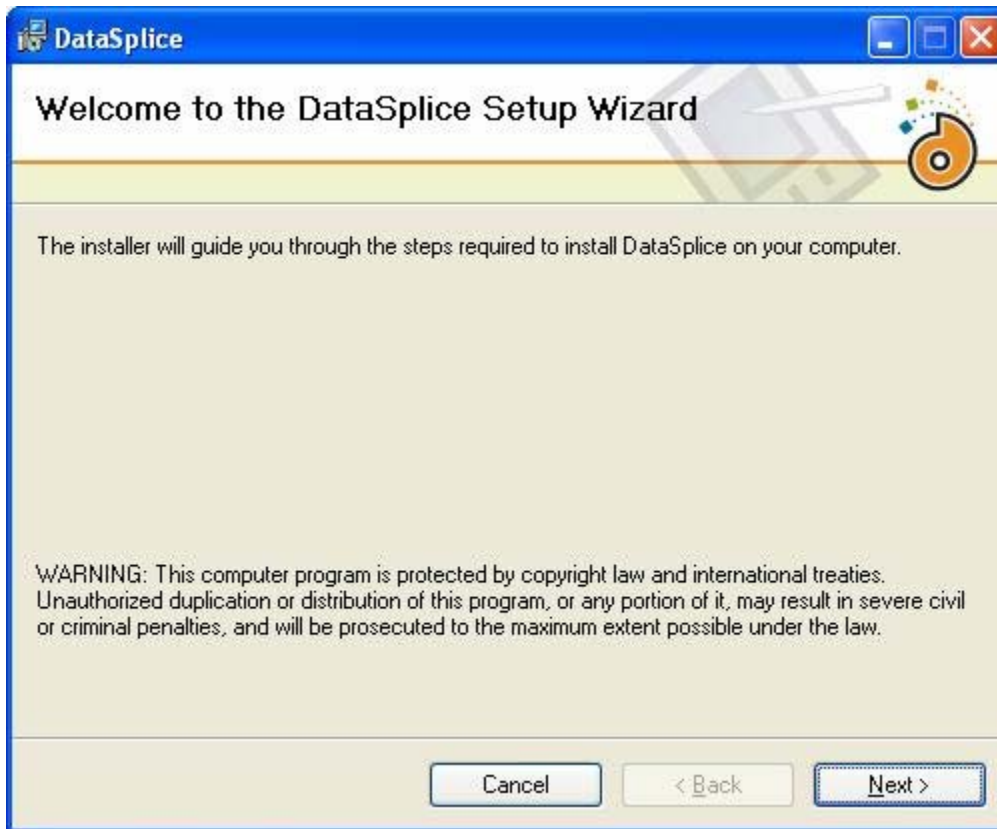
Installing the DataSplice Mobile Integration Suite

The DataSplice setup wizard guides you through the installation of each component of the DataSplice Mobile Integration Suite.

Running the Setup Wizard

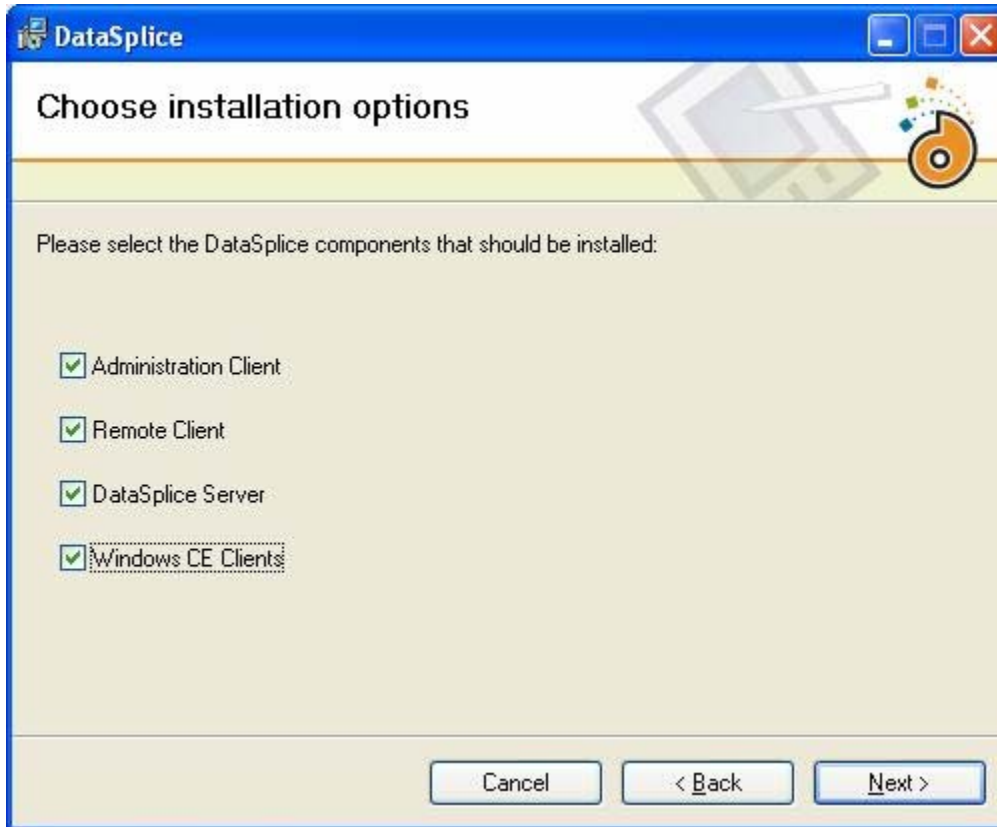
Locate and run the *DataSplice-2.3.10.0.msi* installation file. The basic steps are described in the following sections.

At the **Welcome** dialog screen, click the **Next** button to begin the installation process. Be sure to shut down any currently running programs before continuing with the installation. At any time during this process, click the **Cancel** button if you would like to abort the installation.



Selecting the Components to Install

After choosing the destination directory, you will be prompted to select the DataSplice components you want installed. The following dialog box shows the components that are available for installation:

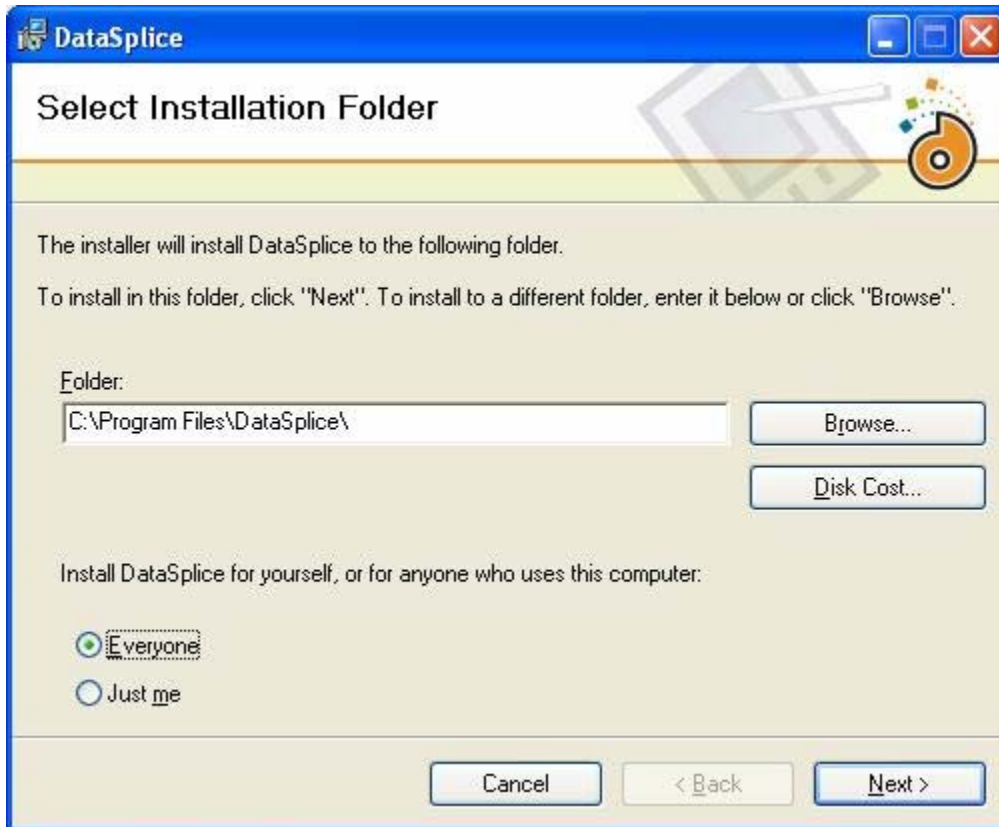


When the **DataSplice Server** component is selected, the **Administration Client** is automatically selected as well. After selecting the desired components, click the **Next** button at the bottom of the window.

Selecting the **Windows CE Clients** component installs the necessary files to allow you to manually install the DataSplice Remote Client onto mobile devices.

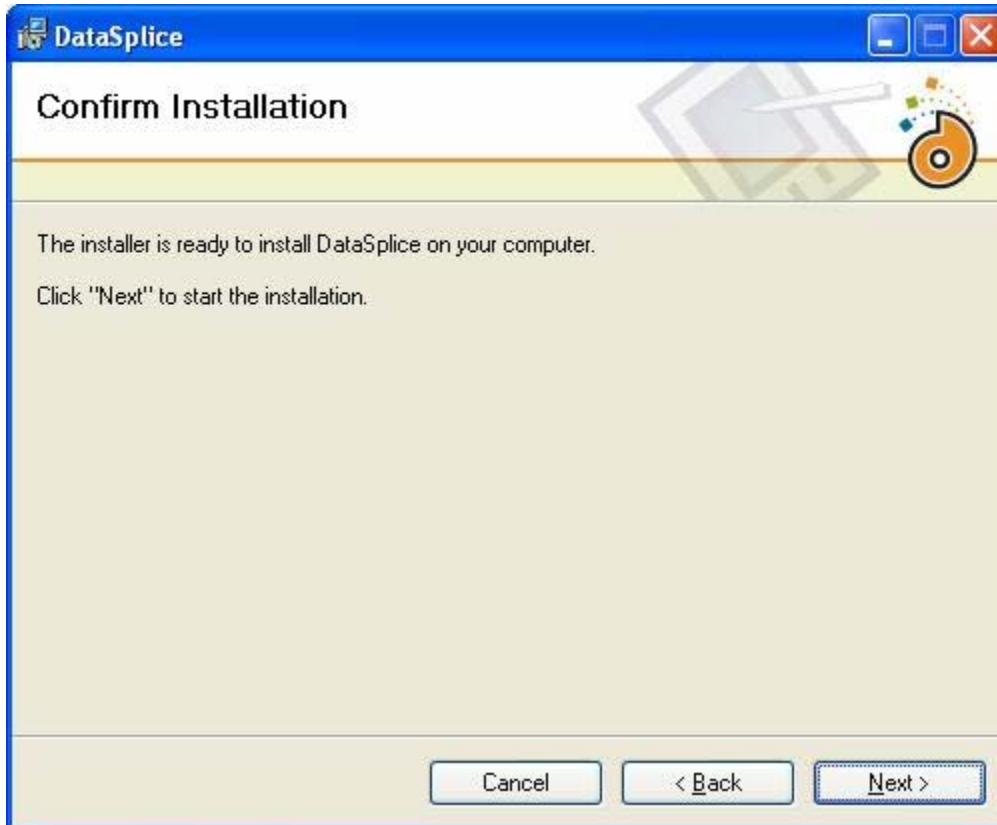
Choosing the Destination Directory

Next, you will choose the destination directory for your installation. The default destination folder is *C:\Program Files\DataSplice*. You may accept this as the installation directory or choose a different location by clicking the **Browse** button. When you are satisfied with the destination location, click the **Next** button to continue.

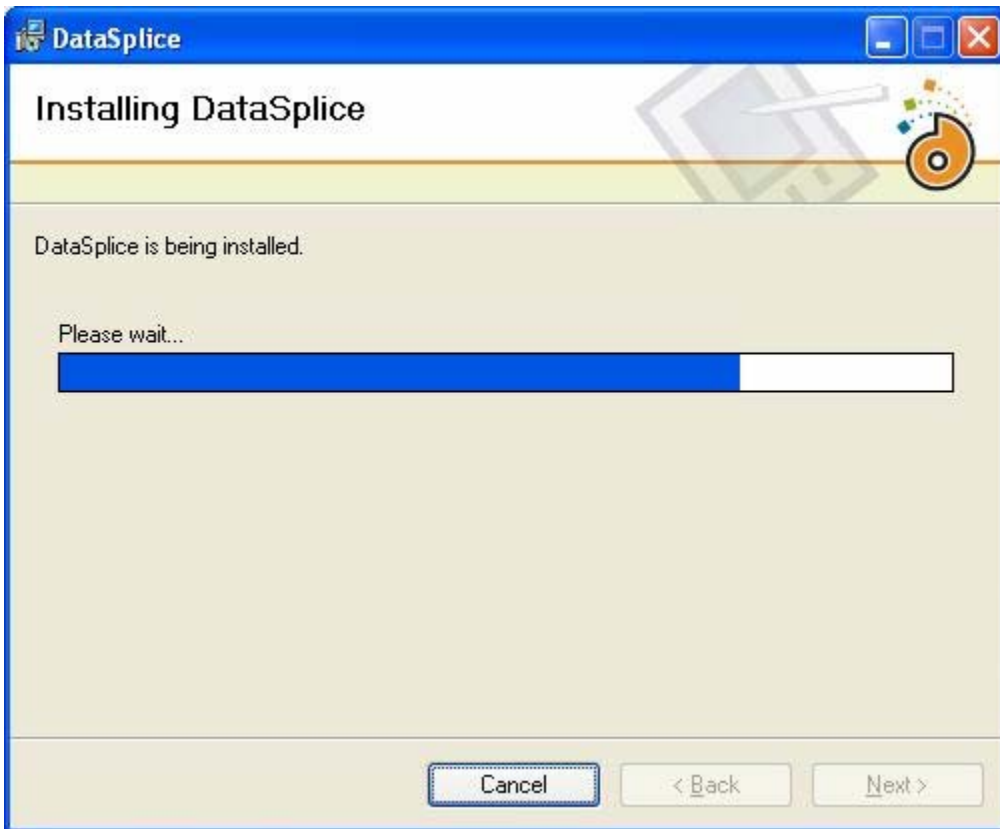


Confirming the Installation

After selecting the components to be installed, the DataSplice setup wizard will attempt to install the selected components based upon the options specified in the previous sections. Click the **Next** button to begin the installation of the desired components.

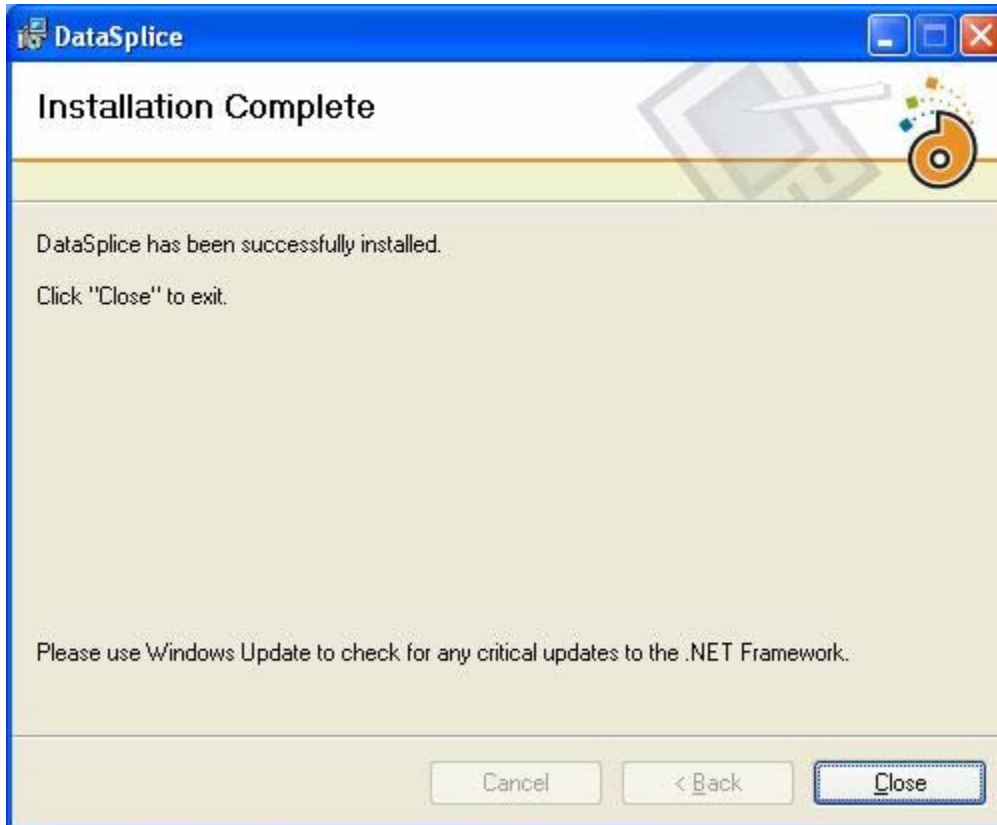


As the specified components are being installed, a progress bar will keep you updated on the status of the installation.



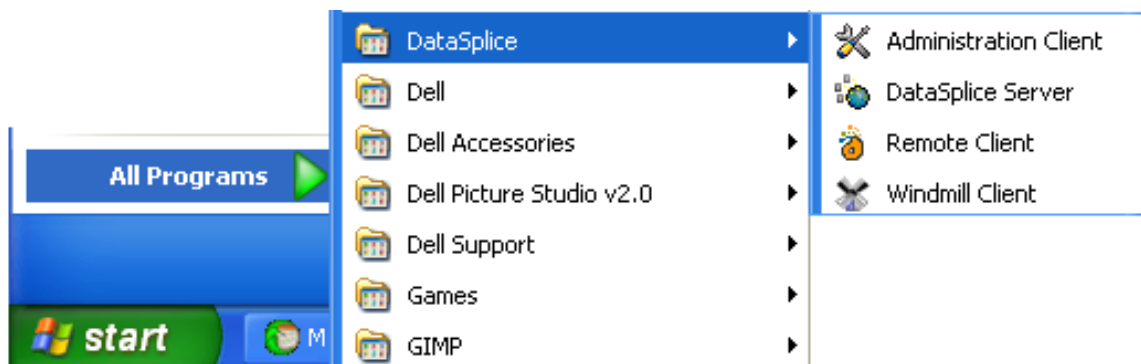
Completing the Installation

You will be notified when the installation has been completed. After successful completion of this step, click the Close button. Setup is complete and control will pass back to the Windows desktop.



Start Menu Group

DataSplice icons will be placed in the DataSplice program group on the Start menu, unless an alternative location was specified.



DataSplice Remote Client Installation on Mobile Devices

In addition to being installed on a PC, the DataSplice Remote Client application can be easily installed on mobile devices. Using the Remote Client on mobile devices allows you to realize the true potential of the DataSplice software in a mobile environment.

There are two methods to install the DataSplice Remote Client application on a mobile device:

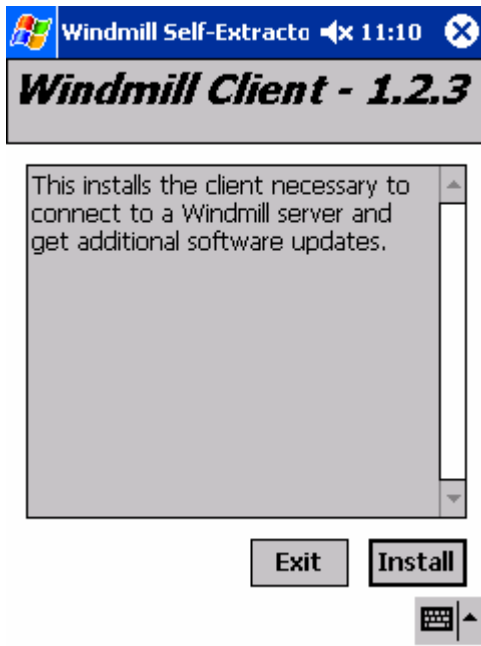
- **Installing the DataSplice Remote Client Using Windmill**
- **Installing the DataSplice Remote Client Manually**

A utility program can also be used on the mobile device to streamline certain actions in the DataSplice Remote Client. The utility is explained on this page:

- **Configuring the Button Helper Utility**

Installing the DataSplice Remote Client Using Windmill

The first method of installing the DataSplice Remote Client application on a mobile device is to use the Windmill provisioning software. Using Windmill is the preferred method of the two installation options, as it offers a more efficient and user-friendly installation process. For Windmill installation and usage instructions, please refer to the Windmill Guide on <http://support.datasplice.com>.



Installing the DataSplice Remote Client Manually

Alternatively, you may choose to manually install the DataSplice Remote Client onto a mobile device. This is accomplished by using ActiveSync to transfer the necessary files from a desktop PC to the mobile device.

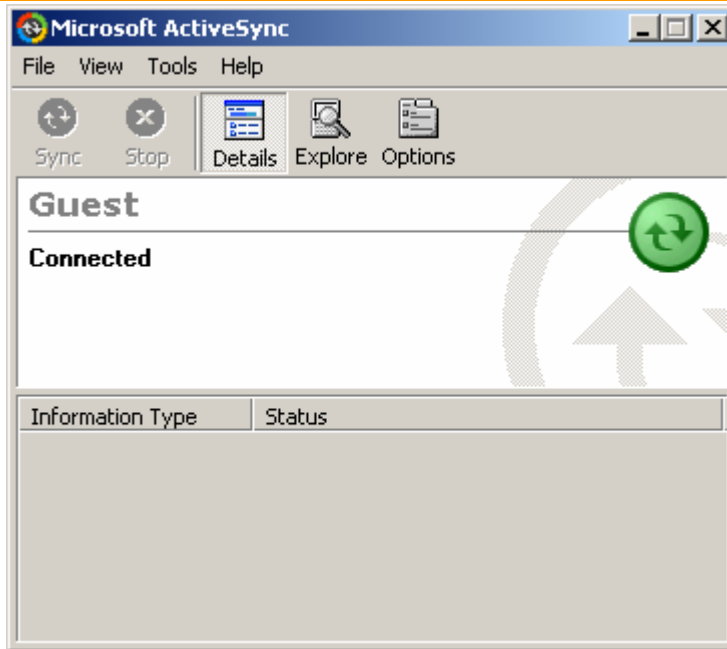
If you are having trouble with ActiveSync or would like more information, please see our **ActiveSync Frequently Asked Questions** page at <http://support.datasplice.com/FAQs/ActiveSyncTroubleshooting>.


Pre-Installation Considerations

- Ensure that ActiveSync is installed on the desktop computer you will be using. If you do not already have it on your desktop PC, you can download the latest version of ActiveSync at <http://www.microsoft.com/windowsmobile/downloads/activesync38.msp>.
- Ensure that the mobile device can communicate by either a cable (serial or USB), Ethernet connection, wireless card (802.11b), or infrared port with the desktop computer.
- Ensure that the Network TCP/IP configuration and IP addressing is configured.
- Ensure that DataSplice is not already running on the mobile device.

Installation Steps

- Start ActiveSync. If it is the first time you have used ActiveSync with this mobile device, you may need to use the **Get Connected** wizard to connect. The wizard will automatically create the proper connection. If you are prompted to choose a type of partnership, you can select a **Guest** partnership, as this type of partnership will be sufficient for the installation process. Again, see our **ActiveSync Frequently Asked Question** page at <http://support.datasplice.com/FAQs/ActiveSyncTroubleshooting> for more information.
- The **Connection** screen will appear when a connection is established:



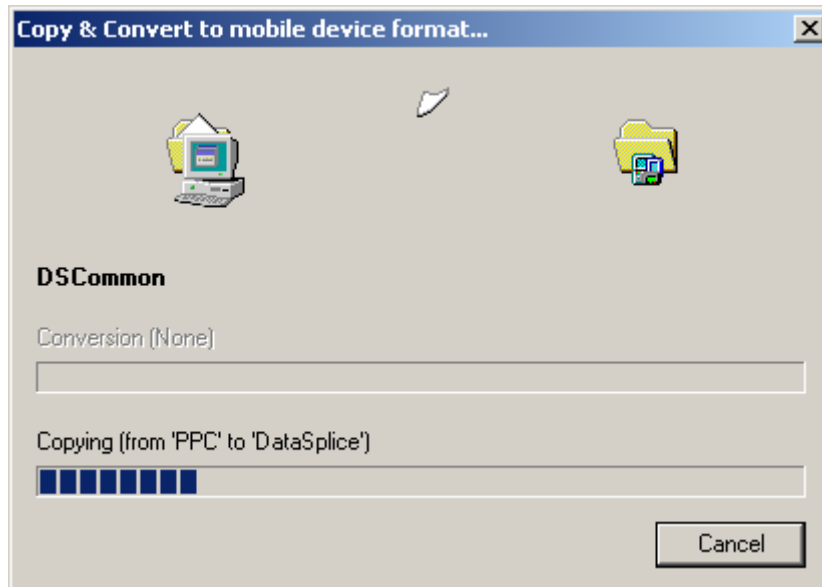
- Click the **Explore Device** button  or click **File > Explore** from the menu to open a file explorer window for the mobile device. It will generally take a few seconds for device's contents to be displayed.
- If your device has an SD card or other non-volatile storage media, you should install DataSplice to that storage card. Depending on the type of device and the type of storage card, this may be in a different folder location. For example, a typical SD card's contents are often located in the *My Pocket PC\SDMMC Disk* folder. If you do not have a non-volatile storage card, browse to the *My Pocket PC\Program Files* folder. Keep in mind, however, that if you do not install the files to non-volatile storage, they will be lost if the mobile device loses battery power or is cold rebooted (reset).
- Right click on an empty area of the window and choose **New Folder**. Name it *DataSplice*.
- Open Windows Explorer on your desktop PC. Browse to the directory where DataSplice was installed on the desktop PC. By default, this is *C:\Program Files\DataSplice*. In this directory, browse to the *WindowsCE* folder. Now browse to the folder that corresponds to the chipset of your mobile device, such as *ARM*, *MIPS*, *SH3*, or *SH4*. Lastly, depending on whether it is running on a Pocket PC (*PPC*) or a Handheld PC (*HPC*) platform, browse to the corresponding folder.

Example:

If you installed DataSplice in the default location on the PC, and your mobile device is an Intermec 750, which uses an ARM chipset on a Pocket PC platform, you would browse to *C:\Program Files\DataSplice\WindowsCE\ARM\PPC*.

- Select all of the files from the appropriate directory on the desktop PC. Right click the selection and choose **Copy**.

- Go to the explorer window of the mobile device. You should still be in the *DataSplice* folder that you recently created. Right click in the window and choose **Paste**.
- You may be warned that some of the files will be converted when they are moved onto the mobile device. Click **OK** to continue. You should see a progress screen as the files are transferring over to the mobile device:



- When the files have successfully transferred to the mobile device, you should see the files listed in the device's *DataSplice* folder. Right click on the *DataSplice.exe* file and choose **Copy**.
- Browse to the *My Pocket PC\Windows\Start Menu\Programs* folder in the mobile device's explorer window.
- Right click on a blank area of this folder and select **Paste Shortcut**. A shortcut file, named *Shortcut to DataSplice.exe* will be placed in the folder.
- Right click on the *Shortcut to DataSplice.exe* file and choose **Rename**. Change the filename to *DataSplice Client*.

You can now run the DataSplice Remote Client application on the mobile device by selecting **Start > Programs > DataSplice Client**.

Configuring the Button Helper Utility

If you have a Pocket PC device, one of the files that was transferred over to the mobile device is *ButtonHelper.exe*. This application facilitates the binding of DataSplice actions to the hot keys on Pocket PC. This application takes command line parameters (such as */newRecord*) and posts the appropriate message to the running instance of DataSplice. This means that shortcuts can be made that perform the specified action, which in turn can be bound to device hot keys in the **Control Panel**. To set up hot keys for DataSplice actions, perform the following steps:

1. On the Pocket PC device, click **Start > Settings**.
2. On the **Personal** tab, click the **Buttons** icon.
3. In the **Button** column, select which button you would like to map an action to.
4. In the **Button assignment** selection dropdown list, pick the action you want to associate with the selected button. The DataSplice actions will begin with *DataSplice –* . For example, to assign the DataSplice **Search** function to a button, you would select *DataSplice – Search* from the dropdown list.
5. Repeat steps 3 and 4 for the other buttons you wish to set. Click **OK** in the upper right corner when you are finished.

The following list shows which actions are available for hot key mapping:

- Clear Screen
- Commit Changes
- Delete Record
- Get Offline Data
- Login Screen
- Narrow Search
- Navigate Back
- New Record
- Next Page
- Previous Page
- Reset Record (Cancel Changes)
- Search
- Toggle Connection
- View List

Initial Configuration Steps

Now that the DataSplice Mobile Integration Suite has been successfully installed, there are some initial configuration items that should be completed:

- **Creating an ODBC Data Source**
- **Launching the DataSplice Server**
- **Connecting to the DataSplice Server**
- **Enabling Functionality with a Valid License Key**
- **Creating a Connection Profile**
- **Testing Available Views**

Creating an ODBC Data Source

Open Database Connectivity (ODBC) is a widely accepted application programming interface (API) for database access. Databases use proprietary data access schemes that require the use of different database languages. ODBC eliminates the need to create code specific to each database, instead providing one standard set of calls. The calls are translated to the appropriate language by the ODBC drivers. Utilizing ODBC, databases are referred to by their Data Source Name (DSN).

Note: If you have established your ODBC data source but it does not show up in DataSplice, please be sure to disconnect and reconnect with the DataSplice Administration Client. Your data source should then be listed.

Acquiring ODBC

ODBC is required for DataSplice and is standard on many installations of Windows. To verify that ODBC is installed, click **Start > Settings > Control Panel > Administrative Tools**. If **Data Sources (ODBC)** is listed here, then it is already installed. If you do not have ODBC, it is available for download from Microsoft at <http://www.microsoft.com/data/download.htm>.

Data Sources

Different types of data sources:

User DSN

An ODBC **User Data Source Name** stores information about how to connect to the indicated data provider. A user data source is local to a computer and is accessible only by the current user.

System DSN

An ODBC **System Data Source Name** stores information about how to connect to the indicated data provider. A system data source is local to a computer but is not user-dedicated. Any user can access a system DSN. In most cases, this is the preferred type of data source for use with DataSplice.

File DSN

An ODBC **File Data Source Name** allows you to connect to a data provider. A file data source need not be user-dedicated or local to a computer.

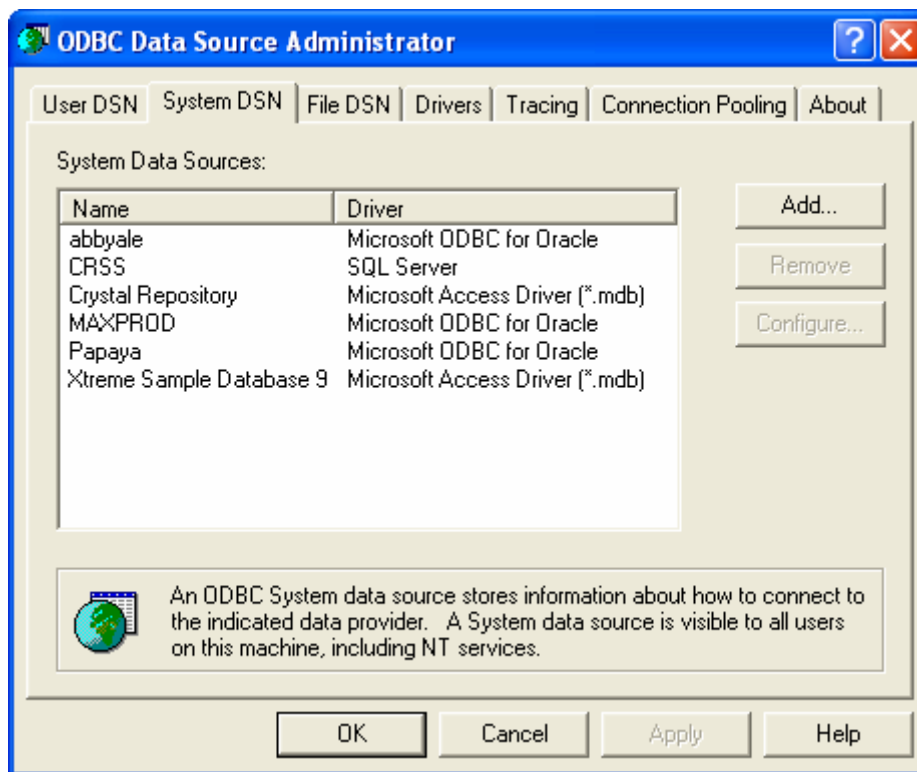
Note: DataSplice requires that each DataSplice Server have at least one DSN set for all databases utilized by DataSplice.

Creating a Data Source in Microsoft ODBC Data Source Administrator

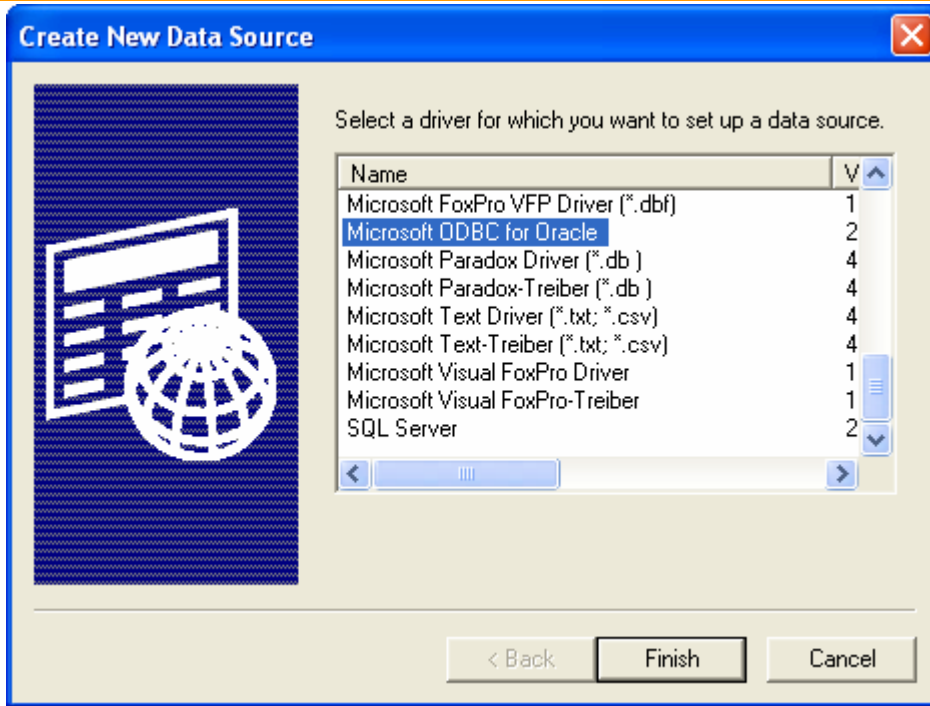
Before creating an ODBC data source, be sure the database server is configured. For more information regarding configuration of the database, consult the documentation that was provided with the particular database.

To create an ODBC data source:

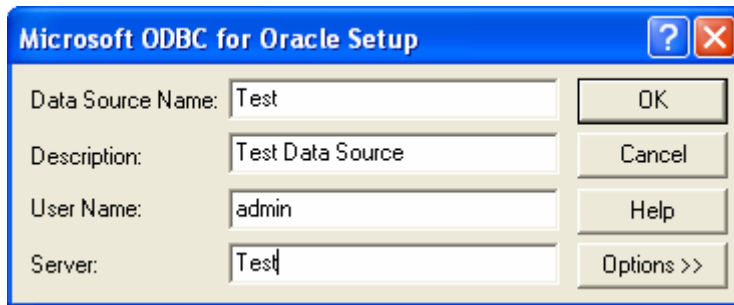
1. Launch the ODBC Data Source Administrator by selecting **Start > Settings > Control Panel > Administrative Tools > Data Sources (ODBC)**.
2. Select the appropriate DSN tab. In most cases, you will want to use a system DSN:



3. Click **Add** to begin creating the data source. This will open the **Create New Data Source** dialog box:



4. Select the appropriate driver for the data source, and then click **Finish**. A dialog box will appear to allow you to configure the data source. Each data source driver has a different installation interface. Consult the documentation provided with the data source for more information about how to complete the fields.



5. After you have entered the appropriate information for your data source, click **OK** to finish. You can make modifications to the data source later by highlighting the data source from the list on the **System DSN** tab and then clicking **Configure**.

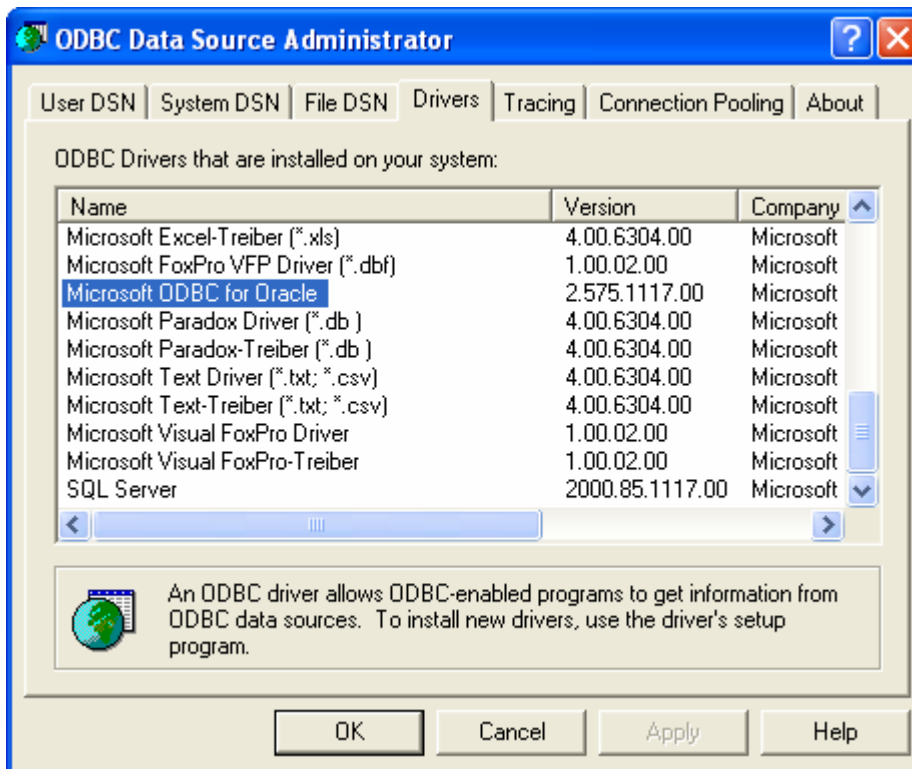
Drivers

Databases use proprietary data access schemes that require the use of different database languages. ODBC provides an interface that standardizes the syntax necessary to communicate with ODBC-compliant databases. The ODBC drivers are responsible for translating the syntax into the database-specific language, which allows one set of code to access many different databases. Each type of database utilized must have its own ODBC driver installed.

Installing ODBC Drivers

In order to add or remove an ODBC driver, the setup utility that is specific to the particular driver and database must be run. The **Drivers** tab in the ODBC Data Source Administrator only displays information about the drivers already installed.

Note: Drivers may not be installed from this location.

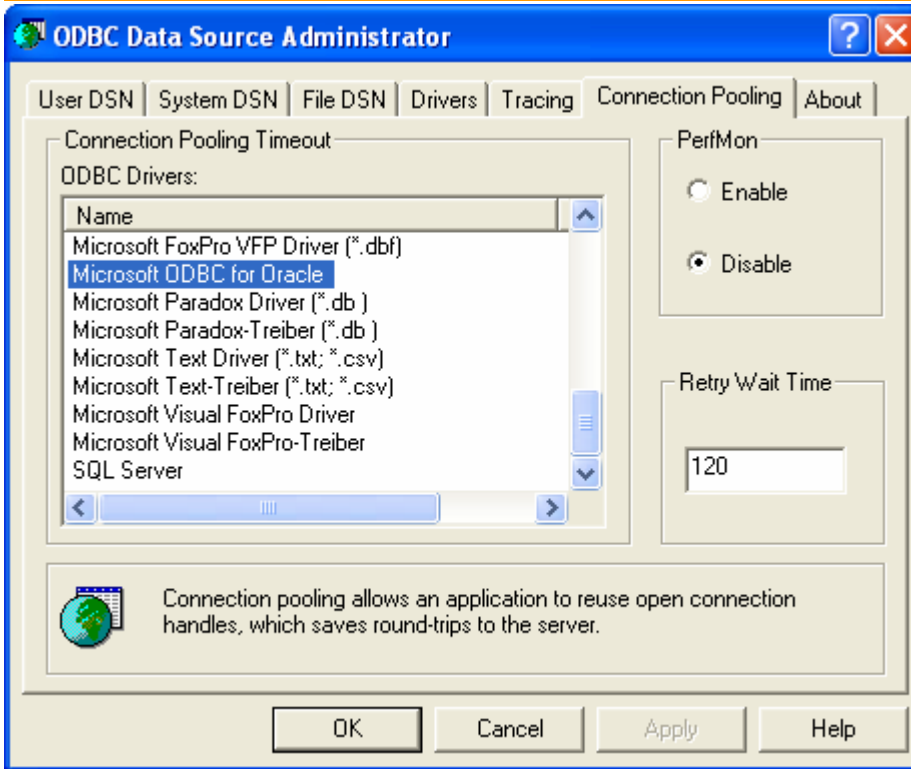


Connection Pooling

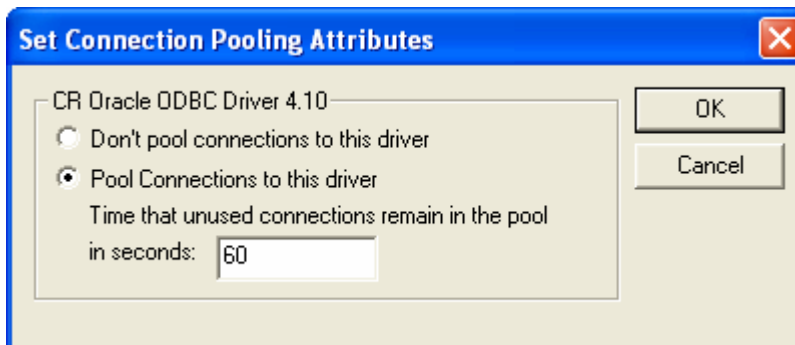
When an application needs a particular driver, it first requests a connection handle with which to identify the driver and then requests that the Driver Manager load the driver. Connection pooling places these handles in a pool so that they may be reused without having to reestablish a connection, thus saving round-trips to the server and improving performance.

Connection Pooling Tab

The **Connection Pooling** tab sets the connection pooling timeout, retry wait time, and enables or disables performance monitoring.



- **Connection Pooling Timeout** – This specifies the time, in seconds, that unused connections will remain in the pool. To set the connection pooling timeout, double click the appropriate driver. The **Set Connection Pooling Attributes** dialog box appears:



- **PerfMon** – Enable or disable performance monitoring by selecting the appropriate radio button for this option.
- **Retry Wait Time** – This specifies the interval, in seconds, at which the ODBC Driver Manager retries to make a connection to the database server.

Launching the DataSplice Server

To be able to access the DataSplice Server, the program must first be started. The DataSplice Server can be launched in two distinct ways:

- **Launching the DataSplice Server as an Application**
- **Launching the DataSplice Server as a Service**

Launching the DataSplice Server as an Application

The DataSplice Server can be launched as an application. This allows it to be launched directly from the **Start** menu.

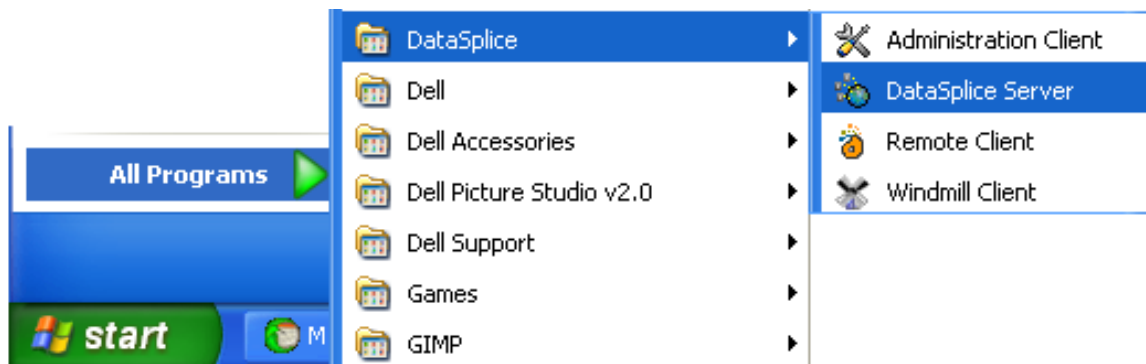
One downside of launching the DataSplice Server as an application is that it has to be started manually. Another drawback is that the application will stop running when the user who started it logs out.

With these considerations in mind, the following steps can be used to launch the DataSplice Server as an application.

Running the Application


To launch the DataSplice Server through the Start menu:


- Click **Start > Programs > DataSplice > DataSplice Server**.



To launch the DataSplice Server by directly accessing the executable file:

- Open Windows Explorer.
- Browse to **C:\Program Files\DataSplice**, or other installation folder if DataSplice was not installed in the default location.
- Double click the **DSSplicer.exe** file.

A corresponding icon will appear in the system tray. As it is starting up, the icon will show flashing colors to signify that the DataSplice Server is initializing . No connections can be accepted to the DataSplice Server until it is done initializing.

Once the DataSplice Server has finished initializing, the icon will stop flashing . At this time, the DataSplice Server has successfully started and is now ready to receive connections.

Launching the DataSplice Server as a Service

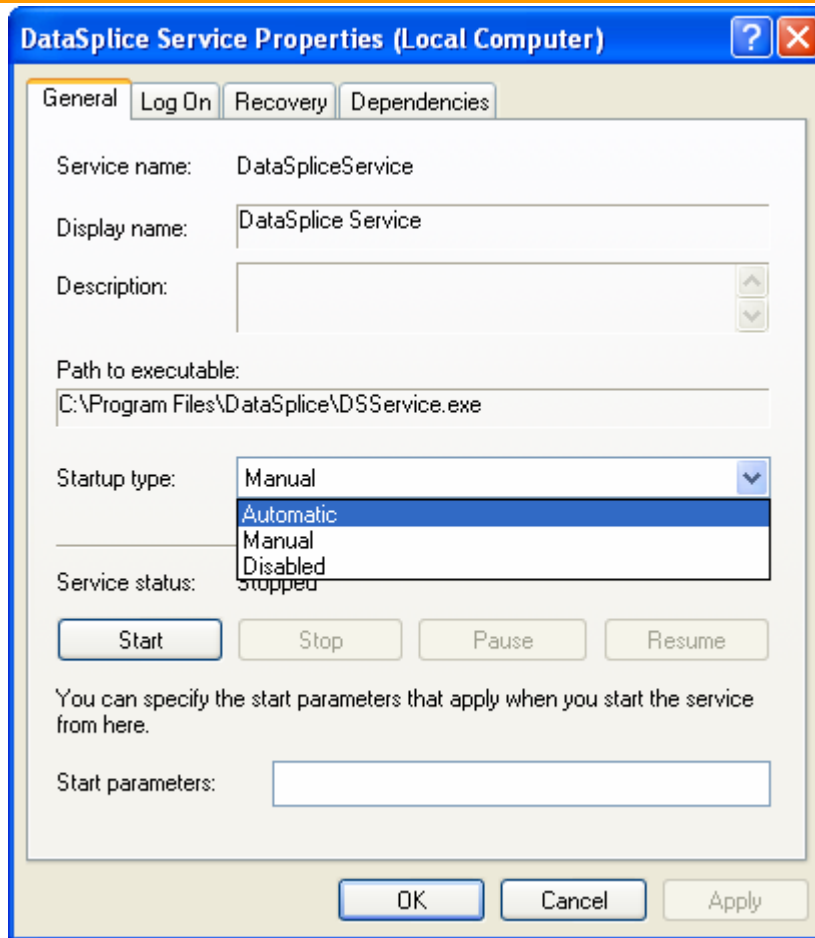
The DataSplice Server can be configured to run as a service. While this requires an additional configuration step, it is often the preferred method for launching the DataSplice Server. Compared to running as an application, launching it as a service has numerous advantages:

- The DataSplice Server can start automatically when the server computer boots up.
- It is launched independently from a particular user.
- Additional behavior can be configured using the service properties dialog box.

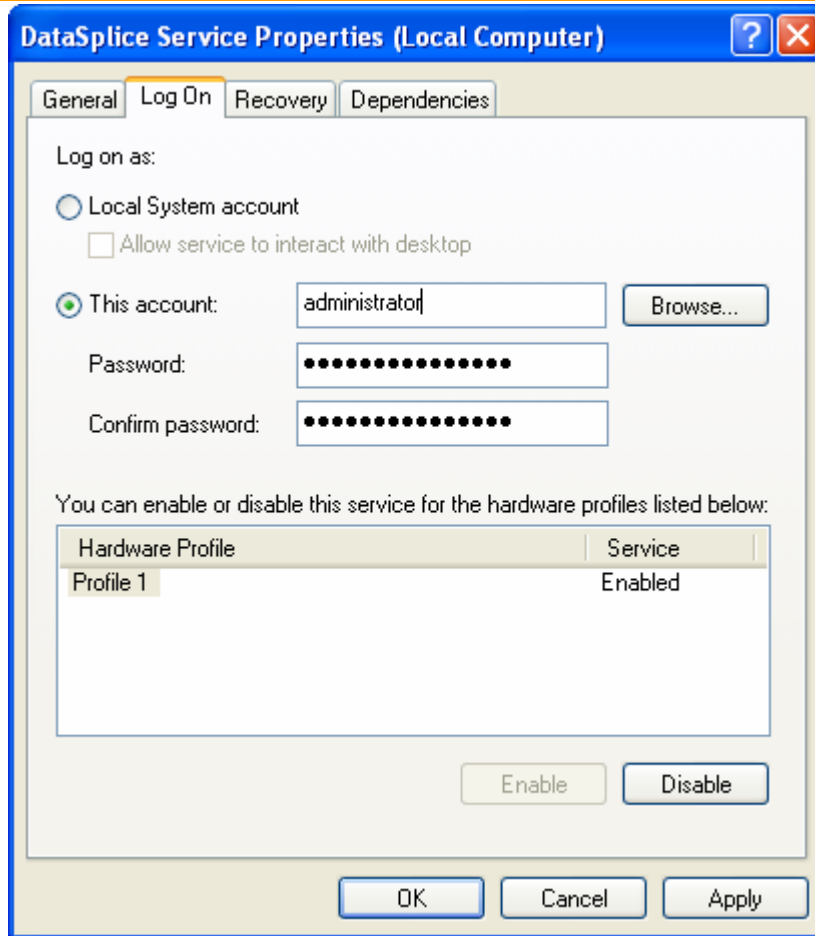
Configuring the Service

To configure the DataSplice Server to run as a service:

- Browse to *C:\Program Files\DataSplice*, or other installation path if different than the default location.
- Double click the *DSServiceInstall.bat* file.
- Click **Start > Settings > Control Panel > Administrative Tools**.
- Double click **Services**.
- Double click the **DataSplice Service** entry to open the **Properties** dialog box.
- On the **General** tab, select *Automatic* from the **Startup Type** dropdown list to cause the service to start when the computer boots up:



- Select the **Log On** tab.
- In the **Log on as:** section, select **This account:**.
- Enter a valid local administrator account. This allows the necessary permissions for an administrator to log in and stop the service if needed.
- Enter and confirm the password in the appropriate fields:



- Click **OK**.

When the DataSplice Server launches as a service, it will not generate an icon in the system tray. To verify that it is running, you can open the Services panel and check its status. You can also open Windows Task Manager and look for the *DSSplicer.exe* and *DSService.exe* processes.

Note: If you have difficulty running the DataSplice Server as a service, please ensure that the latest MSXML library is properly installed on the computer.

Removing the Service

At some point, you may wish to remove the DataSplice Server service that you have previously configured. You can use the following steps to do so.

To remove the DataSplice Server service:

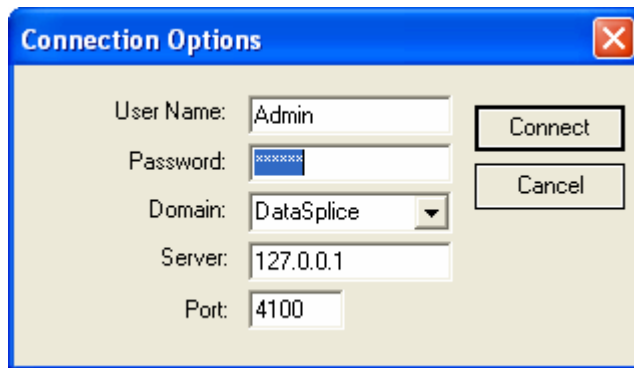
- Browse to *C:\Program Files\DataSplice*, or other installation path if different than the default location.
- Double click the *DSServiceRemove.bat* file.

Connecting to the DataSplice Server

To configure items in the DataSplice Server, you first need to connect to it with the Administration Client.

To connect to the DataSplice Server with the Administration Client:

- Click **Start > Programs > DataSplice > Administration Client**.
- When the Administration Client window opens, click **File > Connect**.
- You will see the **Connection Options** dialog box:



- Enter the default initial user name of *Admin*.
- Enter the default initial password of *changethis*.
- Enter the correct server address (if this is the same computer that the DataSplice Server is running on, this will be *127.0.0.1*).
- Click **Connect**.
- Upon initial login, you will be presented with the **Change Password** dialog box:



- Enter and confirm your new password and click **Change**.

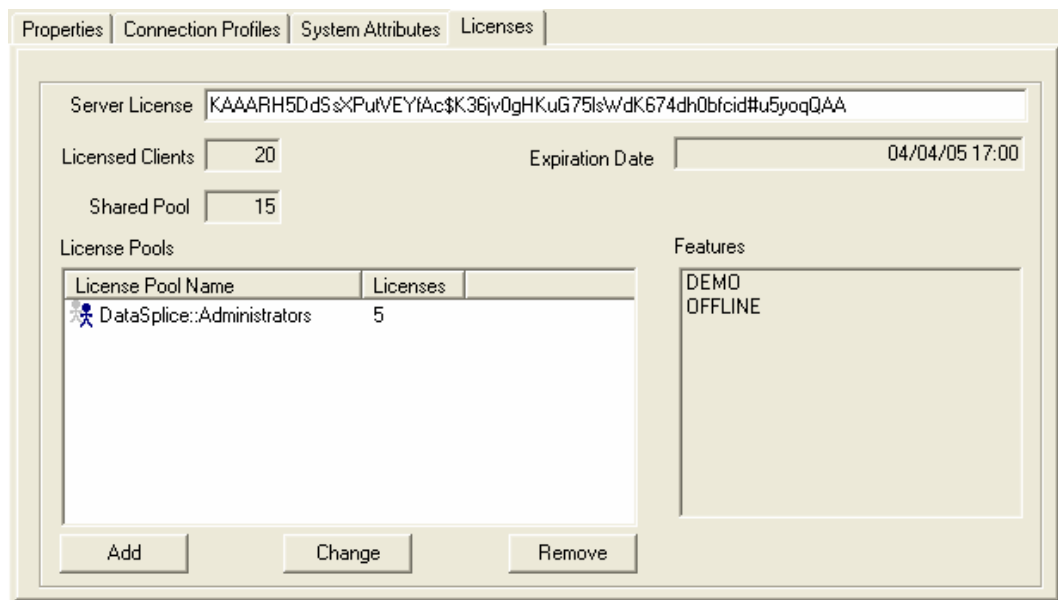
For more information, please see the **Connection Options** section of the **DataSplice Administration Client User Manual**.


Enabling Functionality with a Valid License Key

To unlock the product’s full functionality, you will need to enter a valid license key in the Administration Client.

To enter a license key:

- Expand the **System Information** section in the left pane.
- Select the **Options** item in the left pane.
- In the right pane, select the **Licenses** tab.
- In the **Server License** field, paste the appropriate license key that you received from a DataSplice representative:



- Click the **Update** button .
- You will be prompted to reconnect, at which time the product will have the appropriate functionality.

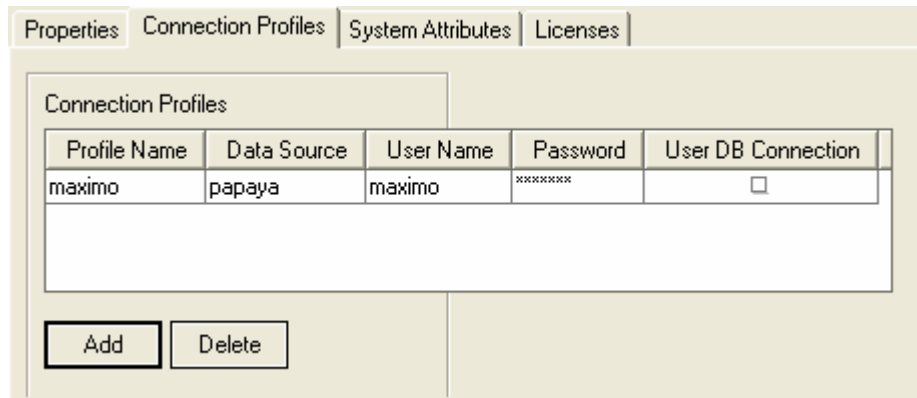
For additional information, please see the **Licenses Tab** explanation in the **DataSplice Administration Client User Manual**.

Creating a Connection Profile

To interact with data, you need to create a connection profile in the Administration Client. The DataSplice Server uses connection profiles to define the details needed to connect to a data source for a particular view. This will likely be the data source that you created in the previous **Creating an ODBC Data Source** section.

To create a connection profile:

- Expand the **System Information** section in the left pane.
- Select the **Options** item in the left pane.
- In the right pane, select the **Connection Profiles** tab.
- Click the **Add** button.
- In the **Profile Name** field, enter an appropriate name for the profile, such as *maximo*.
- Double click the **Data Source** field to select the data source from the dropdown list.
- In the **User Name** field, enter a user name with correct credentials to access this data source.
- In the **Password** field, enter the password for the user you just entered:



Profile Name	Data Source	User Name	Password	User DB Connection
maximo	papaya	maximo	*****	<input type="checkbox"/>

Buttons: Add, Delete

- Click the **Update** button .

For additional information, please see the **Connection Profiles Tab** section of the **DataSplice Administration Client User Manual**.