

SECTION 1

Installation and Getting Started

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1

Moving Data with the Import and Export Wizard

The Import and Export Wizard is the easiest method to move data from sources like Excel, Oracle, DB2, SQL Server, and text files to nearly any destination. This wizard uses SSIS as a framework and can optionally save a package as its output prior to executing. The package it produces will not be the most elegant, but it can take a lot of the grunt work out of package development and provide the building blocks that are necessary for you to build the remainder of the package. Oftentimes as an SSIS developer, you'll want to relegate the grunt work and heavy lifting to the wizard and do the more complex coding yourself. The wizard does no transformations or cleansing, but instead only moves data from point A to point B.

As with most SQL Server wizards, you have numerous ways to open the tool:

- To open the Import and Export Wizard, right-click the database you want to import data from or export data to SQL Server Management Studio and select Tasks ⇄ Import Data (or Export Data based on what task you're performing).
- You can also open the wizard by right-clicking SSIS Packages in SQL Server Data Tools (SSDT) and selecting SSIS Import and Export Wizard.
- Another common way to open it is from the Start menu under SQL Server 2012 by choosing Import and Export Data.
- The last way to open the wizard is by typing `dtswizard.exe` at the command line or Run prompt.

Regardless of whether you need to import or export the data, the first few screens in the wizard look very similar.

Once the wizard comes up, you see the typical Microsoft wizard welcome screen. Click Next to begin specifying the source connection. If you opened the wizard from Management Studio by selecting Export Data, this screen is prepopulated. In this screen, you specify where

your data is coming from in the Source drop-down box. Once you select the source, the rest of the options on the dialog box may vary based on the type of connection. The default source is SQL Native Client, and it looks like Figure 1-1. You have OLE DB Sources like SQL Server, Oracle, and Access available out of the box. You can also use text files and Excel files. After selecting the source, you have to fill in the provider-specific information.

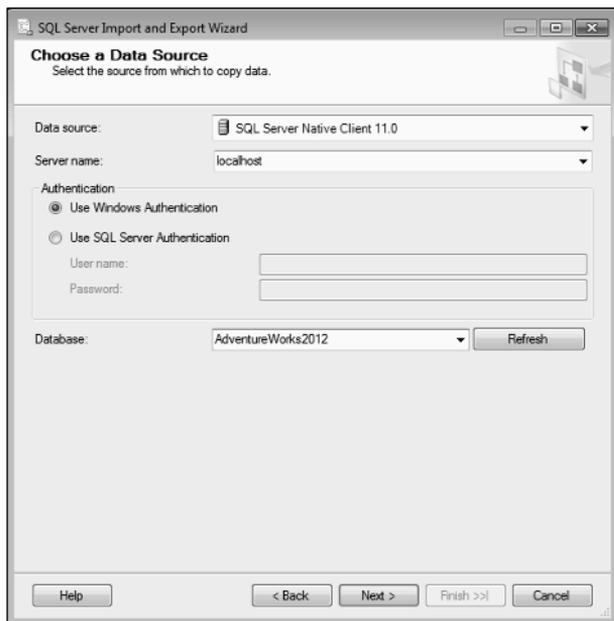


FIGURE 1-1

For SQL Server, you must enter the server name (localhost means go to your local machine's SQL Server instance, if applicable) and the username and password you want to use. If you're going to connect with your Windows account, simply select Use Windows Authentication. Windows Authentication will pass your Windows local or domain credentials into the data source. Lastly, choose a database that you'd like to connect to. For most of the examples in this book, you use the AdventureWorks2012 database. You can see Lesson 3 of this book for more information on installing this sample database.

NOTE You can find the sample databases used for this book at the Wrox website at www.wrox.com/go/SQLSever2012DataSets.

NOTE Additional sources such as Sybase and DB2 can also become available if you install the vendors' OLE DB or ODBC providers. You can download additional providers for free if you're using Enterprise Edition by going to the *SQL Server 2012 Feature Pack on the Microsoft website*. You also have ODBC and ADO.NET providers available to you in SQL Server 2012.

After you click Next, you are taken to the next screen in the wizard, where you specify the destination for your data. The properties for this screen are exactly identical to those for the previous screen with the exception of the database. On the next screen, if you select the Copy data from one or more tables or views option, you can simply check the tables you want. If you select the Write a query to specify the data to transfer option, you can write an ad hoc query (after clicking Next) addressing where to select the data from or what stored procedure to use to retrieve your data.

The next screen enables you to select the table or tables you want to copy over and which table names you want them to be transferred to. If you want, you can click the Edit button to go to the Column Mappings dialog box (shown in Figure 1-2) for each table. Here you can change the mapping between each source and destination column. For example, if you want the DepartmentID column to go to the DepartmentID2 column on the destination, simply select the Destination drop-down box for the DepartmentID column and point it to the new column, or choose <ignore > to ignore the column altogether. By checking the Enabled identity insert box, you allow the wizard to insert into a column that has an identity (or autonumber) value assigned. If the data types don't match between the source and destination columns, the wizard will add the necessary components to convert the data to a proper data type if possible.

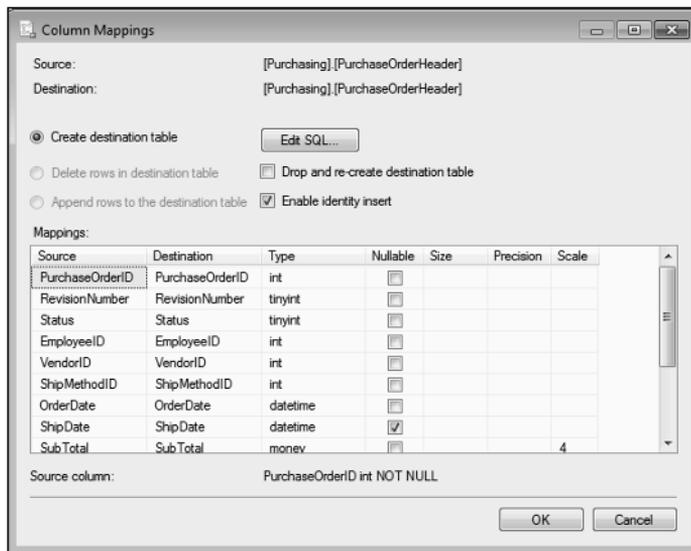


FIGURE 1-2

The next screen enables you to save the package or just choose to run it immediately. You can uncheck Execute Immediately to just save the package for later modification and execution. You can open the package that executed in SQL Server Data Tools (SSDT) if you'd like. You do this by creating a project in SSDT and adding the package to the project. You cannot edit the package without an SSDT project to contain the package. We discuss how to create a project in Lesson 4 later in this book. The final screen executes the process and shows you the output log.

TRY IT

In this Try It, you learn how to quickly load a flat file into a database using the Import and Export Wizard. After this lesson, you'll have a clear understanding of how the Import and Export Wizard is the easiest way to load data into almost any destination and how it is accessed from Management Studio or SSDT.

You can find the file associated with Lesson 1 on the companion website for this book at www.wrox.com.

Lesson Requirements

Load the ZipCodeExtract.csv file (which you can download at this book's website at www.wrox.com) into any database of your choosing. We are using the AdventureWorks2012 database as our target, but that's not a dependency. Note: The file's first row holds the column names.

Hints

- One of the fastest ways to access the Import and Export Wizard to load the data is through Management Studio. Right-click the target database and select Tasks ⇨ Import Data.

Step-by-Step

1. Open SQL Server Management Studio in the SQL Server 2012 program group.
2. Right-click the target database of your choosing (like AdventureWorks2012) and select Tasks ⇨ Import Data.
3. For the Data source, select Flat File Source, as shown in Figure 1-3. For the File name property, select the ZipCodeExtract.csv file that you can download from this book's website at www.wrox.com. Check the Column names in the first data row option to read the column names from the first row of data from the flat file. Click the Columns page in the left pane to confirm that the file is delimited by commas.
4. Click Next to configure the destination. Point to any server and database you want.
5. On the Select Source Tables and Views screen, click Edit Mappings to go to the Column Mappings page. Change the StateAbbr to a size of 2 and the Population column to an int data type, as shown in Figure 1-4. Normally, you would evaluate each column to use the proper data length in an effort to save space.

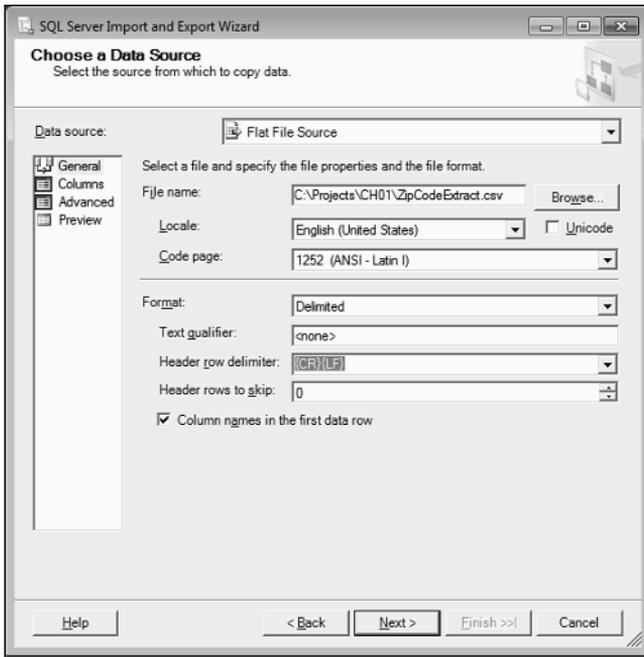


FIGURE 1-3

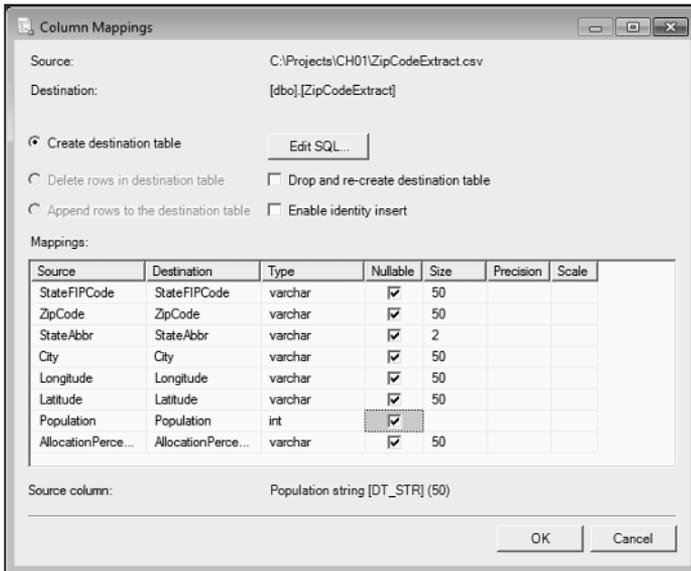


FIGURE 1-4

6. Click OK to leave the Column Mappings page and then click Next to review any data type mapping warnings. The Data Mapping Warnings screen shows you where you have any columns for which the data types don't match. You can ignore those warnings for the time being and click Next a few times to execute the package. If you are successful, you should see a total of 29,470 rows. You will see a truncation warning, which is a warning that you receive when you try to insert a 50-character string into a smaller sized column like a `varchar(2)`, that you can also ignore.

Please select Lesson 1 on the DVD, or online at www.wrox.com/go/ssis2012video, to view the video that accompanies this lesson.