



EasyLanguage SQL Interface Manual

Version 1.0

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1 License Agreement

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Disclaimer

DBTrader believes that the information contained herein and described in this manual is accurate and reliable. However, no responsibility, financial or otherwise, shall be accepted for any consequences arising from the use of this product. Information contained herein is subject to change.

2 Introduction

The DBTrader EasyLanguage SQL Interface allows TradeStation users to perform updates on a Microsoft SQL Server database directly from EasyLanguage. The interface is designed for users who are familiar with EasyLanguage and need a method to quickly perform more in-depth analysis on their data.

For example, users who do a lot of strategy development may export each performance report or optimization report to Excel for further analysis. However, this is a manual process and can be time-consuming. With the SQL interface users can export strategy performance data automatically and instantly generate reports based on custom SQL queries.

The interface has been tested and works well with the free SQL Server 2005 Express Edition. This edition is a lightweight version of SQL Server 2005 which is used in many enterprise application. It provides powerful features for the individual user. For more information on SQL Server Express visit <http://msdn2.microsoft.com/en-us/express/aa718378.aspx>.

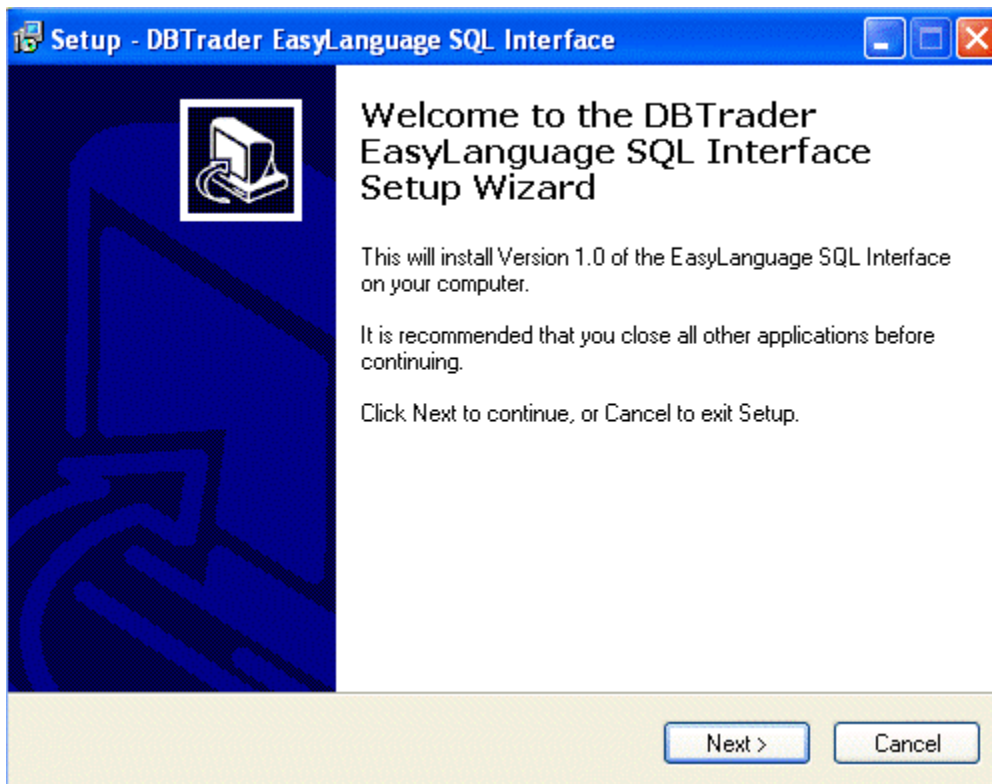
If you download SQL Server 2005 Express you may also want to download SQL Server Management Studio Express which will allow you to query the tables you create from EasyLanguage.

3 Installation

To begin installation of the EasyLanguage SQL Interface you will need the registration key that was provided to you.

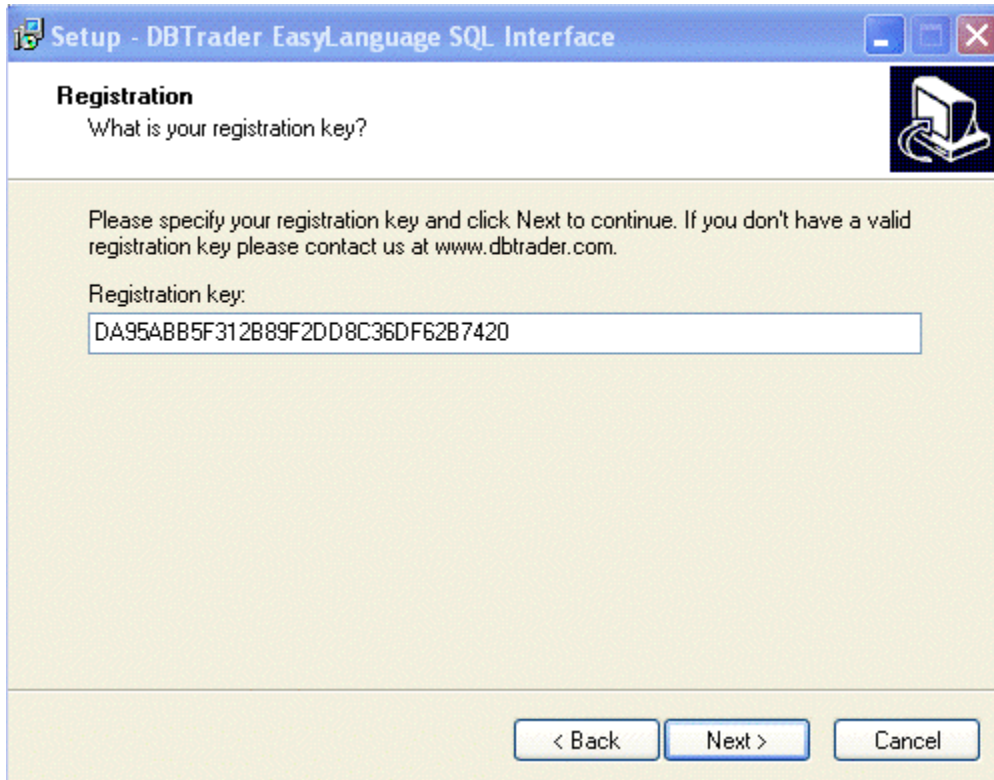
3.1 Step 1 – Check for Prerequisites

Double-click the DBTSQLSetup.exe to start the setup wizard. The wizard will first check to see if the .NET 2.0 Framework is installed. This is a requirement for the interface. If you do not have the Framework a message will be displayed redirecting you to <http://www.microsoft.com/downloads/details.aspx?familyid=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en> where you can download and install the Framework for free. If you already have the Framework installed the welcome screen shown below will be displayed. Click Next.



3.2 Step 2 – Registration Key

You will be prompted for a registration key. This should have been provided to you in an e-mail. You can copy the key from the e-mail and paste it here using Ctrl-V. After you have entered the key click Next.



The screenshot shows a Windows-style dialog box titled "Setup - DBTrader EasyLanguage SQL Interface". The dialog has a blue title bar with standard minimize, maximize, and close buttons. The main content area is light beige and contains the following text:

Registration
What is your registration key?

Please specify your registration key and click Next to continue. If you don't have a valid registration key please contact us at www.dbtrader.com.

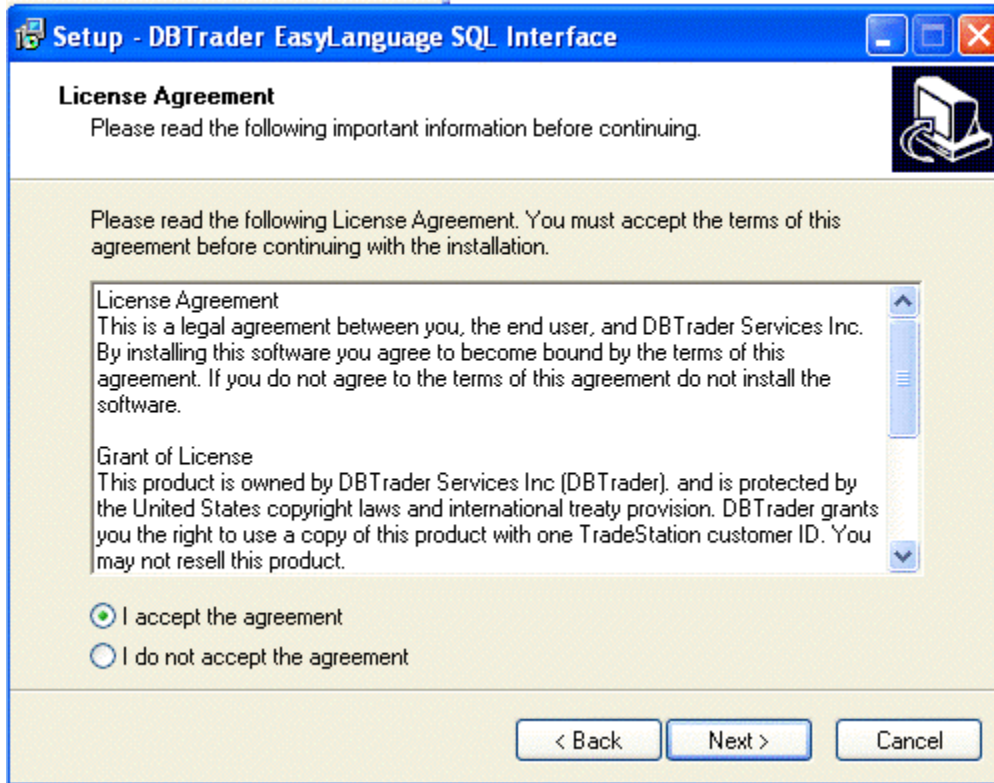
Registration key:

DA95ABB5F312B89F2DD8C36DF62B7420

At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel". A small icon of a computer monitor with a key is located in the top right corner of the dialog's main area.

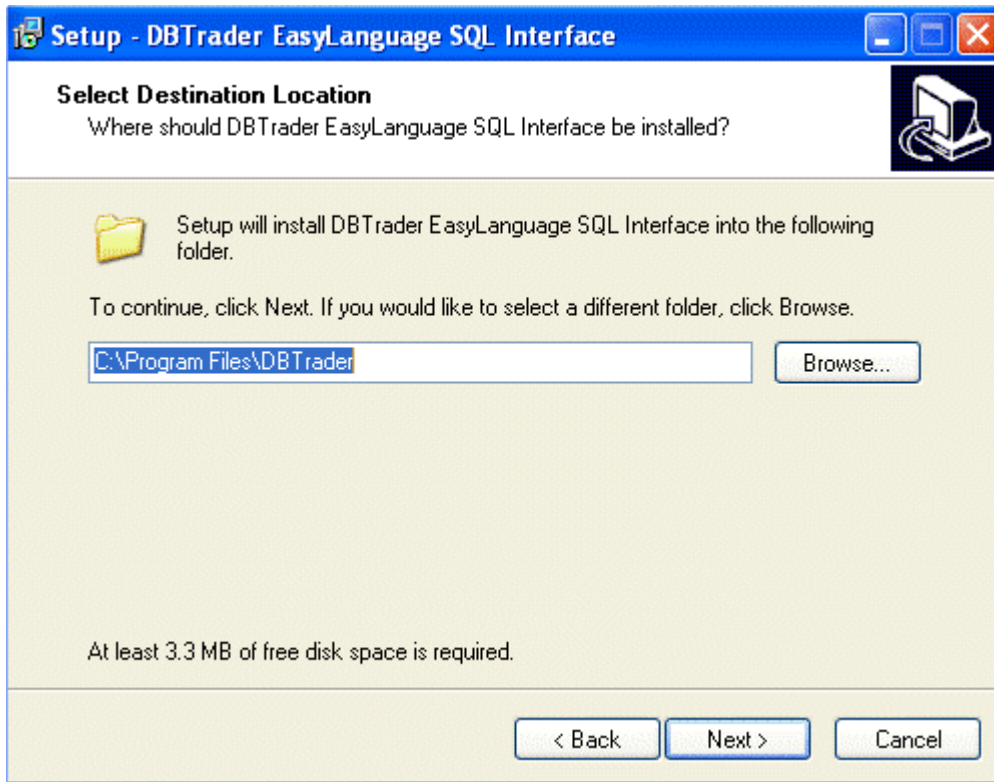
3.3 Step 3 – License Agreement

In order to install the software you must accept the license agreement.



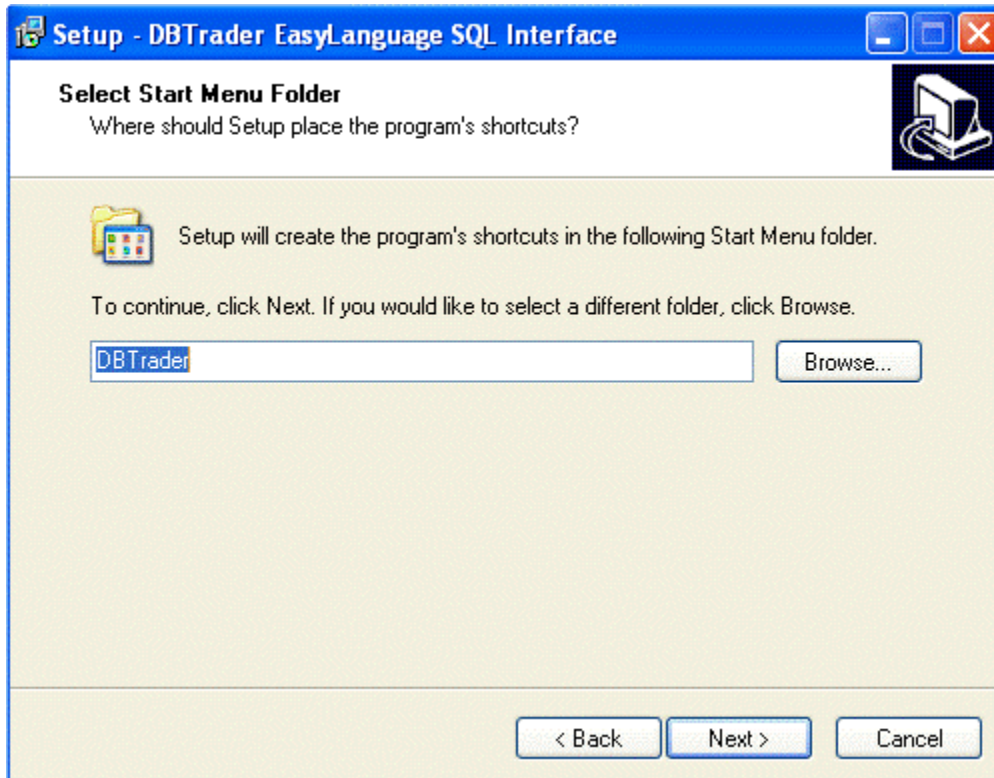
3.4 Step 4 – Destination Location

You will be prompted for a destination location for the program files. This is where the documentation and EasyLanguage files will be stored. Please note that the program also includes some DLL files that will be copied to your Windows system directory. You can type in or browse to a new location or you can keep the default location and click Next.



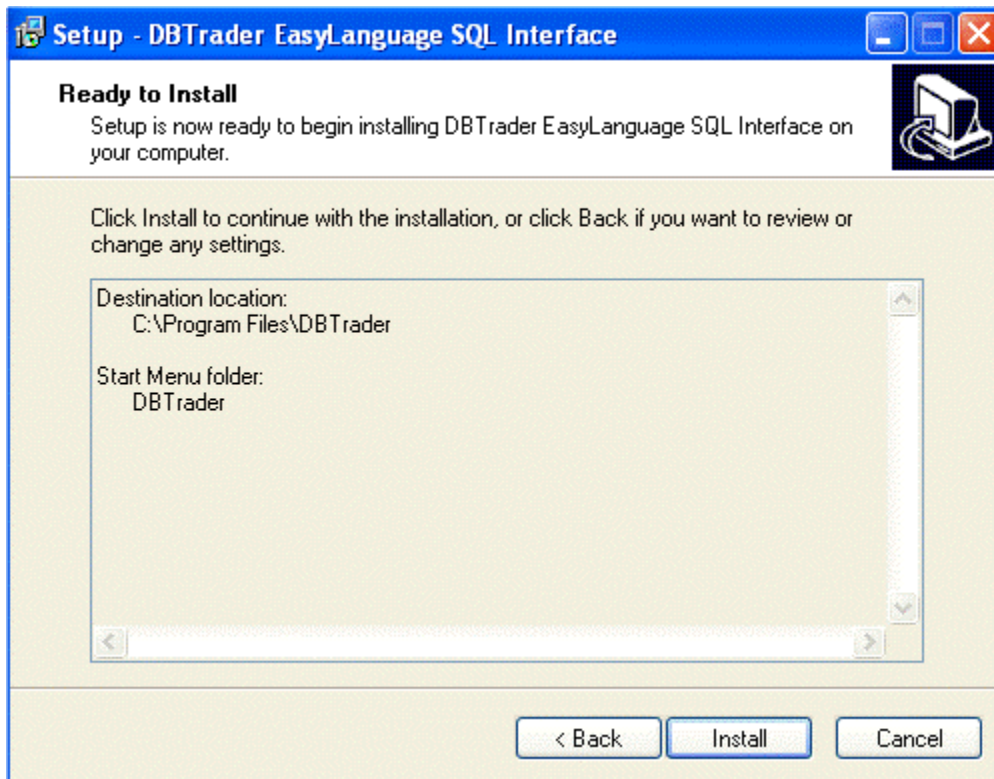
3.5 Step 5 – Start Menu Folder

You will be prompted from a Start Menu folder. This is where the shortcuts to the documentation and EasyLanguage will be placed. You can type in or browse to a new folder or you can keep the default folder and click Next.



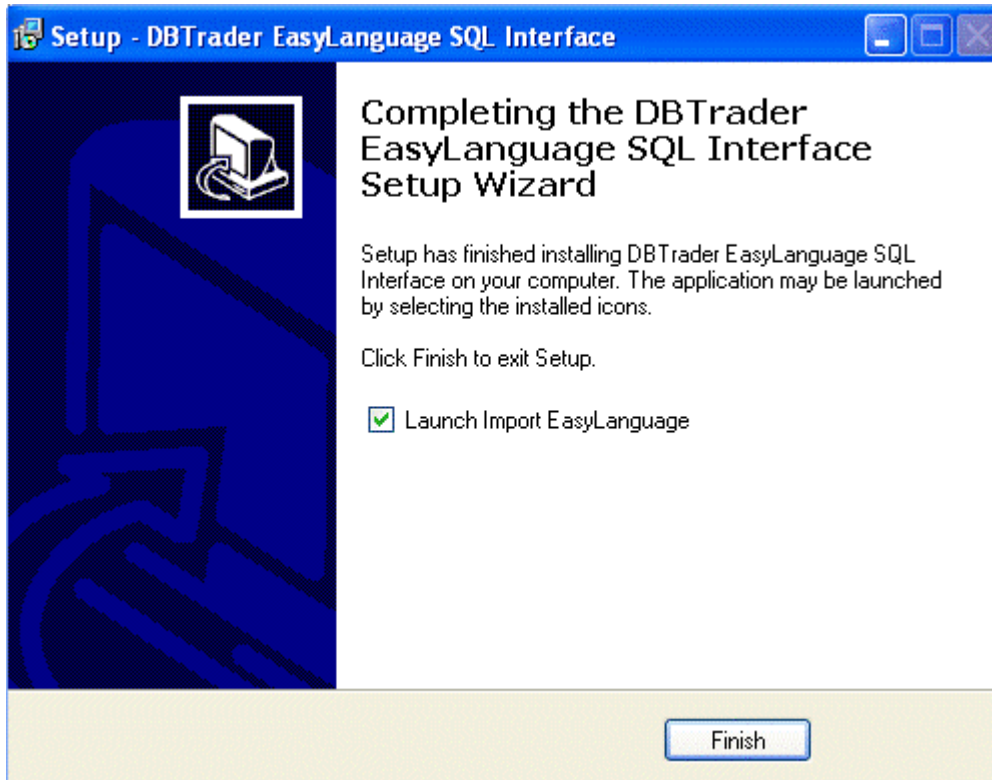
3.6 Step 6 - Install

The program is now ready to be installed. Click the Install button to start the installation.



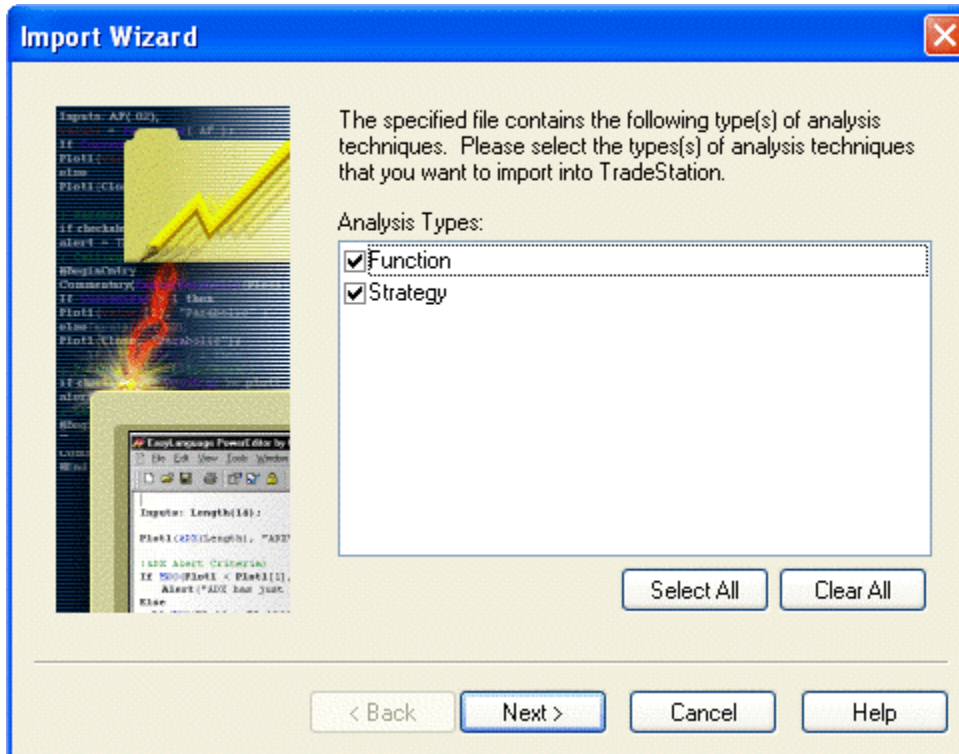
3.7 Step 7 - Finish

Once the installation is complete you will see the following screen. Here you can choose to automatically launch the TradeStation import wizard to import the EasyLanguage files. Click Finish to continue and import the EasyLanguage.



3.8 Step 8 – Import EasyLanguage

The TradeStation import wizard will be launched. Click Next and then Finish to complete the import. All of the SQL Interface functions will be imported along with an example strategy that shows how to export strategy performance data to a SQL database.



4 Example Code

After you have completed the installation you will find an example strategy called DB.SaveStratResults. This strategy can be added to any chart with a strategy already plotted and the performance results will be saved to the database and table that you provide as inputs. No strategy orders are generated by this strategy.

To run the strategy you will first need to create a database called “TS”. If you have installed SQL Express you can run the CreateTSDatabase.bat program to create the database. You can find this under Start | Programs | DBTrader.

Open the EasyLanguage for this strategy to see how the DB functions can be used. For more information on each of the functions refer to the Function Reference.

5 Function Reference

Unless otherwise specified all functions return zero if there is no error. If a non-zero is returned use DB.LastErrorMsg or DB.RaiseRuntimeError to view the error message.

5.1 DB.OpenConnection

Description

Opens a database connection with the provided connection string.

Inputs

Connection String: The database connection string to use. This connection string should point to a Microsoft SQL Server database and should include the name of the database to open. For more information on keywords that can be used in a connection string refer to <http://msdn2.microsoft.com/en-us/library/system.data.sqlclient.sqlconnection.connectionstring.aspx>.

Example: Data Source=.\SQLEXPRESS;Integrated Security=SSPI;Initial Catalog=Stats

5.2 DB.CloseConnection

Description

Closes the open database connection. It is important to close database connections when you are done using it to free up your computer’s resources.

Inputs

None

5.3 DB.CreateColumn

Description

Creates a table column. This function is used in combination with DB.CreateTable to create a database table. Call this function for each column in your table and then call DB.CreateTable to generate the table.

Inputs

Table Name: The name of the table.
Column Name: The name of the column.
Column Type: A string representing the column data type. Refer to <http://msdn2.microsoft.com/en-us/library/ms187752.aspx> for a list of possible data types.

Examples: int, float, datetime, varchar(50)

5.4 DB.CreateTable

Description

Creates a database table. This function is used in combination with DB.CreateColumn. You must create at least one column before calling this function. Note: If a table of the same name already exists in the database it will be deleted.

Inputs

Table Name: The name of the table to create.

5.5 DB.WriteColumn

Description

Writes column data. This function is used in combination with DB.WriteRow to write a row to a table. Call this function for each column in your table and then call DB.WriteRow to insert the row.

Inputs

Table Name: The name of the table.
Column Name: The name of the column.
Column Data: A string representing the column data. Non-string values should be converted to strings before passing the data to this function.

5.6 DB.WriteRow

Description

Writes a row to the table. This function is used in combination with DB.WriteColumn.

Inputs

Table Name: The name of the table to write to.

5.7 DB.LoadTableSchema**Description**

Loads the schema for a table that already exists in the database. This function allows you to initialize the table columns so that you can begin writing without the need to call DB.CreateTable.

Inputs

Table Name: The name of the table to load.

5.8 DB.ExecuteCommand**Description**

Executes the provided SQL command.

Inputs

SQL Command: The SQL command to execute. For example: "DELETE FROM TestTable WHERE Symbol='GOOG' "

5.9 DB.ReadString**Description**

Executes the provided SQL command.

Inputs

SQL Command: The SQL command to execute. For example: "SELECT COUNT(*) FROM TestTable WHERE Symbol='GOOG' "

5.10 DB.LastErrorMsg**Description**

Returns the error message for the last DB call.

Inputs

None

Returns

A string that contains the error message.

5.11 DB.RaiseError

Description

Raises a runtime error. The error description will be displayed along with the last error message. If no error message exists then just the error number will be displayed.

Inputs

Error Number: The error number returned from a DB function.
Error Description: A description to include in the message displayed.

Returns

0

5.12 DB.LastBarOnChart and DB.IFFString

These functions perform exactly the same as the built-in TradeStation functions LastBarOnChart and IFFString. They are only renamed to prevent conflicts with future TradeStation releases.

6 Contact Information

If you have any questions or problems please contact us at www.dbtrader.com.