Run a .sql script file in C#

BexM 35 Points

Wednesday, July 18, 2007 2:05 PM

0

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Hello!

I need to run an sql script file from code.
I have a folder with lots of .sql files, which the app will use if it decides the database is out of date.

I can't work out how to run the whole file?

I am expecting there is be something like cmd.executeFile("file.sql") somewhere but I can't find anything like it.

Is it possible do this or do I need to separate it out the file some how?

Thanks

Bex

Reply Quote

Answers

boban.s Datasoft (Partner) 6,605 Points

Wednesday, July 18, 2007 2:42 PM

17

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You can't run files directly, with just specifing file name. You must first read it's content in a string and then execute CommandText command.
But this will work as long you don't have GO statement in your sql script. From your post it looks like that SqlCommand is not usefull because scripts that include DDL command are completed with batch finalizer GO command. Luckily, since SQL Server 2005, you can use smo library to do this operation and not use batch command and osql connection as previously. Here is how to do it:

```
using System.Data.SqlClient;
using System.IO;
using Microsoft.SqlServer.Management.Common;
using Microsoft.SqlServer.Management.Smo;

namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            string sqlConnectionString = "Data Source=(local);Initial
Catalog=AdventureWorks;Integrated Security=True";
            FileInfo file = new FileInfo("C:\\myscript.sql");
            string script = file.OpenText().ReadToEnd();
            SqlConnection conn = new SqlConnection(sqlConnectionString);
            Server server = new Server(new ServerConnection(conn));
            server.ConnectionContext.ExecuteNonQuery(script);
        }
```

```
        }
    }
```

Reply Quote

All Replies

boban.s Datasoft (Partner) 6,605 Points

Wednesday, July 18, 2007 2:42 PM

17

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            SqlConnection conn = new SqlConnection(sqlConnectionString);
            Server server = new Server(new ServerConnection(conn));
            server.ConnectionContext.ExecuteNonQuery(script);
        }
    }
}
```

Reply Quote

BexM 35 Points

Wednesday, July 18, 2007 3:03 PM

0

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Thanks for the info!
I will try that!

Reply Quote

Vijay_vishwa 0 Points

Friday, August 31, 2007 5:23 AM

0

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Hi i m getting errors while executing because of \n \t \r in the text file while reading. Even the 'GO' statement is giving errors

Reply Quote

timvw ICTEAM 7,340 Points

Friday, August 31, 2007 5:49 AM

1

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Start a transaction, read and execute line by line, commit the transaction or rollback.

Reply Quote

Vijay_vishwa 0 Points

Friday, August 31, 2007 5:51 AM

0

Sign In to Vote

Can u help me with that how can i achieve that. Thank You

Reply Quote

timvw ICTEAM 7,340 Points

Friday, August 31, 2007 6:16 AM

1

Sign In to Vote

Which part? If i type "c# start transaction" and "c# read line by line" in my favorite search -engine i get many valuable answers...

While doing this, didn't take 5 minutes, i stumbled upon http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnmsde/html/msdedepl.asp which even contains the code you're looking for (but it's in vb)..

Reply Quote

boban.s Datasoft (Partner) 6,605 Points

Friday, August 31, 2007 6:49 AM

0

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Code I've posted is working fine. This thread targets the problem of running script files with DDL commands, which means they have '\r\n' new lines and especially 'GO' statemens. In fact SqlCommand object can also execute command text with 'r\n' in the string, but can't execute GO statement.
So you have some other problem.

Reply Quote

deedy 0 Points

Wednesday, September 05, 2007 8:02 AM

0

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I'm sorry. I would like to run sql script on VS2003. VS2003 can't use Microsoft.SqlServer file.

Do you have other way for help me?

Reply Quote

ftpex 45 Points

Thursday, September 06, 2007 11:30 AM

0

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use System.Diagnostics to start sqlcmd

http://msdn2.microsoft.com/en-us/library/ms165702.aspx

http://msdn2.microsoft.com/en-us/library/system.diagnostics.process.aspx

Reply Quote

Mats Aubell Amende (Partner) 25 Points

Wednesday, October 10, 2007 11:27 AM

6

Sign In to Vote

Great tip (post nr.2)! Helped me through a large .sql file Smile

The files you need to reference are:

- Microsoft.SqlServer.ConnectionInfo
- Microsoft.SqlServer.Smo

Took me a few minutes to find at first. If you can't find them in the .NET tab, you might not have it installed. The paths on my computer to these files are:

- c:\Program Files\Microsoft SQL Server\90 \SDK\Assemblies\Microsoft.SqlServer.ConnectionInfo.dll
- c:\Program Files\Microsoft SQL Server\90 \SDK\Assemblies\Microsoft.SqlServer.Smo.dll

Hope it saves some time looking!

Mats

Reply Quote

UAppia 0 Points

Thursday, June 12, 2008 7:49 PM

0

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If I want to pass variables to the sql file,how to do that ?

Reply Quote

ftpex 45 Points

Thursday, June 12, 2008 8:06 PM

0

Sign In to Vote

I use http://www.databasejournal.com/features/mssql/article.php/3566401

and

use System.Diagnostics to start sqlcmd

http://msdn2.microsoft.com/en-us/library/ms165702.aspx

http://msdn2.microsoft.com/en-us/library/system.diagnostics.process.aspx

Reply Quote

Uriah65 5 Points

Tuesday, August 19, 2008 9:33 AM

1

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Should'n we be using 'using' statement for SQLConnection? It implements Dispose() interface.

```
using(SqlConnection conn = new SqlConnection(sqlConnectionString))
{
            Server server = new Server(new ServerConnection(conn));
            server.ConnectionContext.ExecuteNonQuery(script);
}
```

Reply Quote

Tatage 0 Points

Saturday, September 27, 2008 6:53 AM

0

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it works~

thanks~

Reply Quote

jjluna23 0 Points

Wednesday, October 01, 2008 2:51 PM

0

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HI!!

I have a sql file and I want to give some parameters to it and then run it. My guess is, how could I do it with the code given by boban.s? it's possible to pass some parameters to the sql file?

Thanks!!

I'm venezuelan so forgive me for my english.

Reply Quote

Waleed A.K. _ 15 Points

Tuesday, March 24, 2009 7:20 PM

0

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Hi Boban,

I really love your trick, for the people how had some issue with special characters "\n", "\r" or "\t" they can use

```
string script = file.OpenText().ReadToEnd();
```

from Boban code follow by

```
script = script.Replace("\t","  ").Rplace("\n"," ");
```

I think the "\r" works fine, otherwise replace it too.

and if you have some parameter to change like Param1 try to use

```
script = script.Replace("Param1"," 'Test value' ");
```

Thanks

Proposed As Answer by Waleed A.K. _ *Tuesday, March 24, 2009 7:22 PM*

Reply Quote

Wael Al-Joulani ILS (Partner) 560 Points

Monday, April 13, 2009 1:25 PM

0

Sign In to Vote

Hi All:

Thanks for this solution it help me so much, but it's not work when I tried it for a file contains more than one stored procedure, it always give me an error says "Incorrect syntax near the keyword 'PROCEDURE'. Must declare the scalar variable '@Parameter' ", any body have an idea about this problem.

thanks in advance

Reply Quote

boban.s Datasoft (Partner) 6,605 Points

Monday, April 13, 2009 2:04 PM

0

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From the error message, it looks that your script is not correct. Try the same script in management studio in order to debug and find the problem.
There is no limation in executing script on the provided solution. What is required is that script must be correct.

MCDBA, MCSD, MCITP DD&DA http://sharpsource.blogspot.com/

Reply Quote

Wael Al-Joulani ILS (Partner) 560 Points

Tuesday, April 14, 2009 6:16 AM

0

Sign In to Vote

Hi boban:

I tried the procedures in the management studioa and it's return the same error because there are no GO at the end of each procedure so when I add GO at the end of each one it's going right in the management studio but not in the code because of GO.

here is a sample of stored procedures which i use

```
/****** Object:  StoredProcedure [dbo].[UserEmployee_SelectEmployee]    Script Date: 04/
13/2009 15:00:09 ******/
CREATE PROCEDURE [UserEmployee_SelectEmployee]
	@lang varchar(10)
AS
BEGIN
	SELECT
		EmployeeID ,
	case @lang
		when 'Arabic' then
			EmployeeNameA
		else
			EmployeeNameE
		end AS EmployeeName
	FROM
		Employee
		ORDER BY EmployeeName;
END

/****** Object:  StoredProcedure [dbo].[DisplayContract_InsertDisplayContract]    Script D
ate: 04/13/2009 14:58:14 ******/
CREATE PROCEDURE [DisplayContract_InsertDisplayContract](
	@P_ClientID		int,
	@P_ContractDate		datetime,
	@P_ReceiveDate		datetime,
	@P_StartDate		datetime,
	@P_EndDate		datetime,
	@P_Comments		nvarchar (512),
	@P_CreatedBy		nvarchar (30))
AS
BEGIN

	INSERT INTO DisplayContract(
		ClientID,
		ContractDate,
		ReceiveDate,
		StartDate,
		EndDate,
		Comments,
		CreationDate,
		CreatedBy)

	VALUES (
		@P_ClientID,
		@P_ContractDate,
		@P_ReceiveDate,
		@P_StartDate,
		@P_EndDate,
		@P_Comments,
		getdate(),
```

```
        @P_CreatedBy);
END
```

Reply Quote

boban.s Datasoft (Partner) 6,605 Points

Tuesday, April 14, 2009 8:24 AM

0

Sign In to Vote

Put the batch terminator GO after each procedure, and the script should work from code.

MCDBA, MCSD, MCITP DD&DA http://sharpsource.blogspot.com/

Reply Quote

Wael Al-Joulani ILS (Partner) 560 Points

Tuesday, April 14, 2009 9:08 AM

0

Sign In to Vote

thank for your quick reply, I tried it before but still the same problem

Reply Quote

Wael Al-Joulani ILS (Partner) 560 Points

Wednesday, April 15, 2009 6:55 AM

0

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My problem was solved thank you so much, the problem was in the code because I remove new lines from the procedures

Reply Quote

Waleed A.K. _ 15 Points

Friday, April 17, 2009 9:17 PM

3

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If you would like to run a script generated by sql server try to remove all “GO”. See the code below

```
FileInfo
file = new FileInfo(“Put The File Name Here”);
string SQLscript = file.OpenText().ReadToEnd();
SQLscript = SQLscript.Replace("GO", "");
//Optional to Replace Comments with empty string
SQLscript = Regex.Replace(SQLscript, "([/*][*]).*([*][/])", "");
//Optional to Replace Chain of spaces with one Space
SQLscript = Regex.Replace(SQLscript, "\\s{2,}", " ");
SqlCommand sqlCommand = new SqlCommand(SQLscript, “Put your
Connection Here”);
sqlCommand.Connection.Open();
sqlCommand.ExecuteNonQuery();
sqlCommand.Connection.Close();
```

Reply Quote

Tabas 305 Points

Monday, May 25, 2009 9:40 PM

0

Sign In to Vote

Hi,

Just today i have use the following code:

```
/// <summary>
        /// Crea una tabla en la base de datos ZAION
```

```
        /// </summary>
        /// <param name="script">El script SQL generado por Zaion</param>
        /// <param name="conexion">La cadena de conexión a usar</param>
        public static void CreaTablaZaion(string script, string conexion)
        {
            Microsoft.Practices.EnterpriseLibrary.Data.Database _db =
DatabaseFactory.CreateDatabase(conexion);
            DbConnection _cmd = _db.CreateConnection();
            using (SqlConnection conn = new SqlConnection(_cmd.ConnectionString))
            {

                try
                {
                    Server server = new Server(new ServerConnection(conn));
                    server.ConnectionContext.ExecuteNonQuery(script);
                }
                catch (Exception ex)
                {
                    _lasterror = ex.Message;
                    throw new ApplicationException(String.Format("Ocurrió un error al intentar
crear el esquema de plantilla.\r\nMás detalles:\r\n{0}", _lasterror));
                }
            }
        }
```

You will need to add the following references:

```
using System.Data.SqlClient;
using Microsoft.SqlServer.Management.Smo;
using Microsoft.SqlServer.Management.Common;
using Microsoft.Practices.EnterpriseLibrary.Data;
using System.Data.Common;
```

Regards
TESTED

Proposed As Answer by Tabas *Monday, May 25, 2009 9:40 PM*

Reply Quote

Quim Chale (Partner) 0 Points

Wednesday, August 05, 2009 4:34 PM

0

Sign In to Vote

Thanks for this piece of code, I'm using and its working fine but...

- When a create procedure is in the script:
  - if "GO" not is in the script--> Error "Create Procedure must be the first instruction..."
  - if "GO" is in the script --> Syntax Error

Any idea to solve this problem ?

Finally, I think the regular expression to replace comments doesn't work. I test in the notepad++.

Quim

Reply Quote

Waleed A.K. _ 15 Points

Tuesday, August 11, 2009 10:21 PM

0

Sign In to Vote

Hello Quim,

Did you ever tried sp_executesql ?

-Waleed A.K

Proposed As Answer by Waleed A.K. _ *Tuesday, August 11, 2009 10:25 PM*

Reply Quote

Quim Chale (Partner) 0 Points

Wednesday, August 12, 2009 7:24 AM

0

Sign In to Vote

Thanks Waleed

I solved it following the

TIMVW's proposal:

- Start a transaction, read and execute line by line, commit the transaction or rollback:
http://msdn.microsoft.com/library/default.asp?url=/library/en-us/dnmsde/html/msdedepl.asp

Quim Chalé

Reply Quote

J. Pablo Fernández 0 Points

Saturday, September 19, 2009 9:49 PM

0

Sign In to Vote

Hello,

At the line:
server.ConnectionContext.ExecuteNonQuery(script);
I'm getting this error:

```
Test method IsItScienceFiction.Tests.UserTest.TestMethod1 threw
exception:  System.Reflection.TargetInvocationException: Exception has
been thrown by the target of an invocation. --->
System.TypeInitializationException: The type initializer for '<Module>'
threw an exception. --->
<CrtImplementationDetails>.ModuleLoadException: The C++ module failed to
load during appdomain initialization.
 --->  System.DllNotFoundException: Unable to load DLL 'MSVCR80.dll':
The specified module could not be found. (Exception from HRESULT:
0x8007007E).
```

with this stack trace:

_encode_pointer(Void*)
_initatexit_app_domain()
LanguageSupport.InitializePerAppDomain(LanguageSupport*)
LanguageSupport._Initialize(LanguageSupport*)
LanguageSupport.Initialize(LanguageSupport*)
ThrowModuleLoadException(String errorMessage, Exception innerException)
ThrowModuleLoadException(String , Exception)
LanguageSupport.Initialize(LanguageSupport*)
cctor()
Microsoft.SqlServer.Management.Common.ExecuteBatch.GetStatements(String sqlCommand)
System.RuntimeMethodHandle._InvokeMethodFast(Object target, Object[] arguments, SignatureStruct& sig, MethodAttributes methodAttributes, RuntimeTypeHandle typeOwner)
System.RuntimeMethodHandle.InvokeMethodFast(Object target, Object[] arguments, Signature sig, MethodAttributes methodAttributes, RuntimeTypeHandle typeOwner)
System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder binder, Object[] parameters, CultureInfo culture, Boolean skipVisibilityChecks)
System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder binder, Object[] parameters, CultureInfo culture)
System.RuntimeType.InvokeMember(String name, BindingFlags bindingFlags, Binder binder, Object target, Object[] providedArgs, ParameterModifier[] modifiers, CultureInfo culture, String[] namedParams)
System.Type.InvokeMember(String name, BindingFlags invokeAttr, Binder binder, Object target, Object[] args, CultureInfo culture)
Microsoft.SqlServer.Management.Common.ServerConnection.GetStatements(String query, ExecutionTypes executionType, Int32& statementsToReverse)
Microsoft.SqlServer.Management.Common.ServerConnection.ExecuteNonQuery(String sqlCommand, ExecutionTypes executionType)
Microsoft.SqlServer.Management.Common.ServerConnection.ExecuteNonQuery(String sqlCommand)

IsItScienceFiction.Tests.UserTest.TestMethod1() in C:\Users\J. Pablo Fernández\Documents\Visual Studio 2008 \Projects\IsItScienceFiction\IsItScienceFiction.Tests\UserTest.cs: line 75

I am running Visual Studio 2008 with SQL Server 2008. What am I doing wrong?

Proposed As Answer by 205ger *Monday, September 21, 2009 1:29 PM*

Reply Quote

205ger 0 Points

Monday, September 21, 2009 1:30 PM

0

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Hi See this solution: Console

```
static void Main(string[] args)
{
   Console.WriteLine("1-Hola");
  Console.WriteLine("2-Genera Conextion String");
  string sqlConnectionString = @"...."
  SqlConnection cn = new SqlConnection(sqlConnectionString);

  Console.WriteLine("3-Verificando esta de conexion");

       if (cn.State==ConnectionState.Closed)

       {
          Console.WriteLine("4-Por abrir conexion");
        cn.Open();
        Console.WriteLine("5-Conxion Abierta");

       }

  SqlCommand cmd;

  FileInfo file = new FileInfo("C:\\apolo2.sql");
  Console.WriteLine("6-Por leer archivo");
  string sql = file.OpenText().ReadToEnd();
  Console.WriteLine("7-archivo ya leido y paso a reemplazo GO");

  string scriptText = sql;

  //split the script on "GO" commands
  string[] splitter = new string[] { "\r\nGO\r\n" };
  string[] commandTexts = scriptText.Split(splitter,
    StringSplitOptions.RemoveEmptyEntries);

  int i=0;
     Console.WriteLine("8-Actualizando");
  foreach (string commandText in commandTexts)
  {
     if (cn.State == ConnectionState.Closed)
     {

        cn.Open();

     }
     i++;
     string x = commandText.Replace("GO", "");
     cmd = new SqlCommand(x, cn);
     try
     {
        Console.Write(i.ToString() + "-");

        cmd.ExecuteNonQuery();

     }
     catch (SqlException sqlexception)
     {
        Console.WriteLine(sqlexception.Message);
     }
     catch (Exception ex)
     {
        Console.WriteLine(ex.Message);
     }
     finally
```

```
            {
                cn.Close();

            }


            //execute commandText
        }



    Console.WriteLine("10-Cerrada la base OK");
    Console.ReadKey();

     }
```

Proposed As Answer by 205ger *Monday, September 21, 2009 1:45 PM*

Reply Quote

hs_jha 0 Points

Saturday, October 03, 2009 7:44 AM

0

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Cool ! But how to carry out this on production server ?

```
using Microsoft.SqlServer.Management.Common;
using Microsoft.SqlServer.Management.Smo;

are not supported by webforms..
```

Reply Quote

Nitin J. Jain BatchMaster Software Inc... 1,710 Points

Wednesday, October 07, 2009 12:07 PM

0

Sign In to Vote

Hi,

I also have the same requirement i.e. I have to create database and all table using the C# application. I have all command in a

single .sql file. Currently I am using sqlCommand.ExecuteNonQuery() to perform execute sql commands. But as you mention another

way to do the same. Can you please help me which one is better in context of Application performance etc ?

Reply Quote

torohm 0 Points

Tuesday, October 20, 2009 4:16 PM

0

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Hello
I have similar issues.

SQL Server 2008

Using all the correct references I dare say:
System.Data.SqlClient;
using Microsoft.SqlServer.Management.Smo;
using Microsoft.SqlServer.Management.Common;
using Microsoft.SqlServer.Management.Sdk.Sfc;

All compiles with no errors.

I have stripped code down to almost zero for easy debugging.

Connecting to server alright and so on.

Excuting following code:
SqlConnection connection = new SqlConnection(sqlConnectionString);
Server server = new Server(new ServerConnection(connection));
server.ConnectionContext.ExecuteNonQuery(sqlDBQuery);

Where "sqlDBQuery" is a string: "USE [master] GO ALTER DATABASE [Cassiopeia] SET ANSI_NULL_DEFAULT OFF GO ALTER DATABASE [Cassiopeia] SET ANSI_NULLS OFF GO"

But it doesn't matter what "sqlDBQuery" is, I always get the same error, like "incorrect syntax near GO".

I was in belief that SMO would take care of this, when I look at my ConnectionContext is says Batchseparator = "GO"

If I remove GO it's a go... so to speak but I really need to know why my SMO doesn't work.

Hope I didn't post something not applicable to this thread, but everywhere I look it just says "use smo like this and you're off fine". Well... doesn't work for me.

Regards/

Proposed As Answer by Malakin *Monday, November 16, 2009 6:35 PM*

Reply Quote

Malakin 5 Points

Monday, November 16, 2009 6:38 PM

1

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I don't know if this will help any, but i find this way much more reliable.
Have fun and take what you need.

```
/// <summary>
/// Run an .sql script trough sqlcmd.
/// </summary>
/// <param name="fileName">the .sql script</param>
/// <param name="machineName">The name of the server.</param>
/// <param name="databaseName">The name of the database to connect to.</param>
/// <param name="trustedConnection">Use a trusted connection.</param>
/// <param name="args">The arguments passed to the sql script.</param>
public void RunSqlScript(string fileName, string machineName, string databaseName, bo
ol trustedConnection, string[] args)
{
    // simple checks
    if (!Path.GetExtension(fileName).Equals(".sql", StringComparison.InvariantCulture))
        throw new Exception("The file doesn't end with .sql.");

    // check for used arguments
    foreach (var shortArg in new[] { "S", "d", "E", "i" })
    {
        var tmpArg = args.SingleOrDefault(a => a.StartsWith(string.Format("-{0}", shortArg),
StringComparison.InvariantCulture));
        if (tmpArg != null)
            throw new ArgumentException(string.Format("Cannot pass -{0} argument to sqlc
md for a second time.", shortArg));
    }

    // check the params for trusted connection.
    var userArg = args.SingleOrDefault(a => a.StartsWith("-U", StringComparison.Invariant
Culture));
    var passwordArg = args.SingleOrDefault(a => a.StartsWith("-P", StringComparison.Inva
riantCulture));
    if (trustedConnection)
    {
        if (userArg != null)
            throw new ArgumentException("Cannot pass -H argument when trustedConnecti
on is used.");
        if (passwordArg != null)
            throw new ArgumentException("Cannot pass -P argument when trustedConnectio
n is used.");
    }
    else
    {
        if (userArg == null)
            throw new ArgumentException("Exspecting username(-H) argument when trusted
Connection is not used.");
        if (passwordArg == null)
```

```
            throw new ArgumentException("Exspecting password(-P) argument when trusted
Connection is not used.");
    }


    // set the working directory. (can be needed with ouputfile)
    // TODO: Test if the above statement is correct
    var tmpDirectory = Directory.GetCurrentDirectory();
    var directory = Path.IsPathRooted(fileName) ? Path.GetDirectoryName(fileName) : Path.
Combine(this.ProjectRoot, fileName);
    var file = Path.GetFileName(fileName);
    Directory.SetCurrentDirectory(directory);

    // create cmd line
    var cmd = string.Format(string.Format("SQLCMD -S {0} -d {1} -i \"{2}\"", machineName,
 databaseName, file));
    foreach (var argument in args.Where(a => a.StartsWith("-", StringComparison.Invariant
CultureIgnoreCase)))
        cmd += " " + argument;
    if (trustedConnection)
        cmd += " -E";

    // create the process
    var process = new System.Diagnostics.Process();
    process.StartInfo.FileName = "cmd";
    process.StartInfo.CreateNoWindow = true;
    process.StartInfo.UseShellExecute = false;
    process.StartInfo.RedirectStandardOutput = true;
    process.StartInfo.RedirectStandardInput = true;

    // start the application
    process.Start();
    process.StandardInput.WriteLine("@ECHO OFF");
    process.StandardInput.WriteLine(string.Format("cd {0}", directory));
    process.StandardInput.WriteLine(cmd);
    process.StandardInput.WriteLine("EXIT");
    process.StandardInput.Flush();
    process.WaitForExit();

    // write the output to my debug folder and restore the current directory
    Debug.Write(process.StandardOutput.ReadToEnd());
    Directory.SetCurrentDirectory(tmpDirectory);
}
```

Proposed As Answer by Malakin *Monday, November 16, 2009 6:39 PM*

Edited by Malakin *Monday, November 16, 2009 7:18 PM* Added 'EXIT' Command. (this will end the process when its finished)

Reply Quote

hs_jha 0 Points

Monday, November 16, 2009 8:51 PM

0

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What a great yeoman service from a geek!!!!!!!

Malakin what does **this.ProjectRoot** to be replaced with when testing on local cassini

Error 1 'RunSql' does not contain a definition for 'ProjectRoot' and no extension method 'ProjectRoot' accepting a first argument of type 'RunSql' could be found (are you missing a using directive or an assembly reference?) C:\Documents and Settings\hsj\Desktop\TestSQL\RunSql.aspx.cs

Reply Quote

Lordearon 5 Points

Wednesday, January 20, 2010 10:47 AM

1

Sign In to Vote

I don't know if this will help any, but i find this way much more reliable.
Have fun and take what you need.

```
/// <summary>
/// Run an .sql script trough sqlcmd.
/// </summary>
/// <param name="fileName">the .sql script</param>
/// <param name="machineName">The name of the server.</param>
/// <param name="databaseName">The name of the database to connect t
o.</param>
/// <param name="trustedConnection">Use a trusted connection.</param
>
/// <param name="args">The arguments passed to the sql script.</param>
public void RunSqlScript(string fileName, string machineName, string datab
aseName, bool trustedConnection, string[] args)
{
   // simple checks
   if (!Path.GetExtension(fileName).Equals(".sql", StringComparison.Invariant
Culture))
      throw new Exception("The file doesn't end with .sql.");

   // check for used arguments
   foreach (var shortArg in new[] { "S", "d", "E", "i" })
   {
      var tmpArg = args.SingleOrDefault(a => a.StartsWith(string.Format("-{
0}", shortArg), StringComparison.InvariantCulture));
      if (tmpArg != null)
         throw new ArgumentException(string.Format("Cannot pass -{0} argu
ment to sqlcmd for a second time.", shortArg));
   }

   // check the params for trusted connection.
   var userArg = args.SingleOrDefault(a => a.StartsWith("-U", StringCompari
son.InvariantCulture));
   var passwordArg = args.SingleOrDefault(a => a.StartsWith("-P", StringCo
mparison.InvariantCulture));
   if (trustedConnection)
   {
      if (userArg != null)
         throw new ArgumentException("Cannot pass -H argument when trus
tedConnection is used.");
      if (passwordArg != null)
         throw new ArgumentException("Cannot pass -P argument when trus
tedConnection is used.");
   }
   else
   {
      if (userArg == null)
         throw new ArgumentException("Exspecting username(-H) argument
when trustedConnection is not used.");
      if (passwordArg == null)
         throw new ArgumentException("Exspecting password(-P) argument
when trustedConnection is not used.");
   }


   // set the working directory. (can be needed with ouputfile)
   // TODO: Test if the above statement is correct
   var tmpDirectory = Directory.GetCurrentDirectory();
   var directory = Path.IsPathRooted(fileName) ? Path.GetDirectoryName(file
Name) : Path.Combine(this.ProjectRoot, fileName);
   var file = Path.GetFileName(fileName);
   Directory.SetCurrentDirectory(directory);

   // create cmd line
   var cmd = string.Format(string.Format("SQLCMD -S {0} -d {1} -i \"{2}\"", m
achineName, databaseName, file));
   foreach (var argument in args.Where(a => a.StartsWith("-", StringCompar
ison.InvariantCultureIgnoreCase)))
      cmd += " " + argument;
   if (trustedConnection)
      cmd += " -E";

   // create the process
   var process = new System.Diagnostics.Process();
   process.StartInfo.FileName = "cmd";
   process.StartInfo.CreateNoWindow = true;
   process.StartInfo.UseShellExecute = false;
   process.StartInfo.RedirectStandardOutput = true;
   process.StartInfo.RedirectStandardInput = true;
```

```
            // start the application
            process.Start();
            process.StandardInput.WriteLine("@ECHO OFF");
            process.StandardInput.WriteLine(string.Format("cd {0}", directory));
            process.StandardInput.WriteLine(cmd);
            process.StandardInput.WriteLine("EXIT");
            process.StandardInput.Flush();
            process.WaitForExit();

            // write the output to my debug folder and restore the current directory
            Debug.Write(process.StandardOutput.ReadToEnd());
            Directory.SetCurrentDirectory(tmpDirectory);
        }
```

You have a deadlock when reading the console output after the WaitForExit call as described here:
http://msdn.microsoft.com/en-us/library/system.diagnostics.process.standardoutput.aspx

I have changed your code to suite my needs (Client is using OSQL, so I couldn't use -v option)

```
class Program
  {
    static void Main(string[] args)
    {
      string fileName = @"CreateDatabase-params.sql";
      SqlConnectionStringBuilder connStringBuilder = new SqlConnectionStringBuilder(
);
      connStringBuilder.UserID = "sa";
      connStringBuilder.Password = "Test123";
      connStringBuilder.DataSource = @".\SQLEXPRESS";
      Dictionary<string, string> variables = new Dictionary<string, string>(4);
      variables.Add("AppLogin", "ADMTLogin");
      variables.Add("AppPassword", "Test123");
      variables.Add("DBName", "ADMT");
      variables.Add("DBPath", @"C:\Program Files\Microsoft SQL Server\MSSQL10.SQLE
XPRESS\MSSQL\DATA");

      using(
        TextWriter standard = new StreamWriter("output.txt"),
        error = new StreamWriter("errors.txt"))
      {
        SqlHelper.StandardOutput = standard;
        SqlHelper.ErrorOutput = error;
        Thread th = new Thread(new ThreadStart(delegate
          {
            SqlHelper.RunSqlScript(fileName,connStringBuilder,variables);
          }));
        Console.WriteLine("Creating Database");
        th.Start();
        while (th.IsAlive)
        {
          Console.Write(".");
          Thread.Sleep(1000);
        }
        Console.WriteLine(" Done");
        th.Join();
        standard.Flush();
        error.Flush();
      }

      Console.WriteLine("Database Created");
      Console.ReadKey();

    }

class SqlHelper
  {
    public static TextWriter StandardOutput;
    public static TextWriter ErrorOutput;

    /// <summary>
    /// Parse Parameters then Run a .sql script trough osql.
    /// </summary>
    /// <param name="fileName">the .sql script</param>
    /// <param name="connStringBuilder">object that holds all connection information.
</param>
    /// <param name="args">The arguments passed to the sql script.</param>
```

```
        public static void RunSqlScript(string fileName, SqlConnectionStringBuilder connStri
ngBuilder, Dictionary<string,string> variables)
        {
            // simple checks
            if (!Path.GetExtension(fileName).Equals(".sql", StringComparison.InvariantCulture))
                throw new Exception("The file doesn't end with .sql.");

            FileInfo file = ProcessArgs(fileName, variables);

            // create cmd line
            StringBuilder cmd = new StringBuilder(string.Format(
                "OSQL -S \"{0}\" -i \"{1}\" -n",
                /*0*/connStringBuilder.DataSource,
                /*1*/file.ToString()));
            if (connStringBuilder.IntegratedSecurity)
                cmd.Append(" -E");
            else
                cmd.AppendFormat(" -U {0} -P {1}",
                    /*0*/connStringBuilder.UserID,
                    /*1*/connStringBuilder.Password);

            // create the process
            var process = new System.Diagnostics.Process();
            process.StartInfo.WorkingDirectory = Environment.CurrentDirectory;
            process.StartInfo.FileName = "cmd";
            process.StartInfo.CreateNoWindow = false;
            process.StartInfo.UseShellExecute = false;
            process.StartInfo.RedirectStandardOutput = true;
            process.StartInfo.RedirectStandardInput = true;
            process.StartInfo.RedirectStandardError = true;
            process.ErrorDataReceived += new DataReceivedEventHandler(process_ErrorData
Received);
            process.OutputDataReceived += new DataReceivedEventHandler(process_Output
DataReceived);

            // start the application
            process.Start();
            process.BeginErrorReadLine();
            process.BeginOutputReadLine();
            process.StandardInput.WriteLine("@ECHO OFF");
            process.StandardInput.WriteLine(cmd.ToString());
            process.StandardInput.WriteLine("EXIT");
            process.StandardInput.Flush();
            process.WaitForExit();

            //delete temporary file
            file.Delete();

            //Reading output after waitforexit creates deadlock as available output buffer is fu
lly filled
            //output.Write(process.StandardOutput.ReadToEnd());

        }
        private static void process_OutputDataReceived(object sender, DataReceivedEventAr
gs e)
        {
            if (e.Data != string.Empty)
                if (StandardOutput == null)
                    Console.WriteLine(e.Data);
                else
                    StandardOutput.WriteLine(e.Data);
        }

        private static void process_ErrorDataReceived(object sender, DataReceivedEventArgs
 e) {
            if (e.Data != string.Empty)
                if (ErrorOutput == null)
                    Console.WriteLine(e.Data);
                else
                    ErrorOutput.WriteLine(e.Data);
        }

        private static FileInfo ProcessArgs(string fileName, Dictionary<string, string> variable
s)
        {
            FileInfo f = new FileInfo(fileName);
            string SqlScript = f.OpenText().ReadToEnd();
            foreach (KeyValuePair<string,string> kvp in variables)
```

```
            {
                SqlScript = SqlScript.Replace(String.Format("$({0})", kvp.Key), kvp.Value);
            }

            FileInfo newFile = new FileInfo("tmpSql.sql");
            using (var w = newFile.CreateText())
            {
                w.Write(SqlScript);
                w.Flush();
            }
            return newFile;
        }
    }
```

Reply Quote

beesolo 0 Points

Thursday, April 01, 2010 9:25 AM

0

Sign In to Vote

Just wanted to say thanks. You suggestion saved me an enormous amount of trouble and time. Can't believe it worked so easily!

Reply Quote

philipx4 0 Points

Thursday, April 22, 2010 1:40 PM

0

Sign In to Vote

Hi,

Here is a simple solution and it works!

Adds 2 tables to test database

Example SQL Script: BUILDECM.sql

Works with Express 2005 and 2008

```
----------------------------------------------START----------------------------------------------
CREATE TABLE [tbl_archive_years](
  [No] [int] IDENTITY(1,1) NOT NULL,
  [Year] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  [UserId] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  [Domain] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  CONSTRAINT [PK_tbl_archive_years] PRIMARY KEY CLUSTERED
(
  [No] ASC
)WITH (PAD_INDEX  = OFF, STATISTICS_NORECOMPUTE  = OFF, IGNORE_DUP_KEY = OFF,
ALLOW_ROW_LOCKS  = ON, ALLOW_PAGE_LOCKS  = ON)
)
CREATE TABLE [tbl_enquiry_form](
  [No] [int] IDENTITY(1,1) NOT NULL,
  [ItemNo] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  [ProductName] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  [RefNumber] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  [Date] [datetime] NULL,
  [UserId] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  [Domain] [varchar](max) COLLATE Latin1_General_CI_AS NULL,
  CONSTRAINT [PK_tbl_enquiry_form] PRIMARY KEY CLUSTERED
(
  [No] ASC
)WITH (PAD_INDEX  = OFF, STATISTICS_NORECOMPUTE  = OFF, IGNORE_DUP_KEY = OFF,
ALLOW_ROW_LOCKS  = ON, ALLOW_PAGE_LOCKS  = ON)
)
----------------------------------------------END----------------------------------------------
```

```
protectedvoid Button1_Click(object sender, EventArgs e)
{
//SqlConnection con = new SqlConnection(@"Server=.\SQLEXPRESS;Database=" + txtSqlName.Value + ";User ID=" +
txtSqlLogin.Value + ";Password=" + txtSqlPassword.Text + ";Trusted_Connection=False");
SqlConnection con =newSqlConnection
(@"Server=.\SQLEXPRESS;Database=test;UserID=yourusername;Password=yourpassword;Trusted_Connection=False");
```

```
con.Open();
string FilePath;
FilePath = @"C:\Users\Philip\Desktop\BUILDECM.sql";
//FilePath = @"C:\Inetpub\vhosts\" + dsAdministration.Tables[0].Rows[0]["Domain"].ToString() + @"\httpdocs\users\" +
Session["UserId"].ToString() + @"\" + Session["Domain"].ToString() + @"\css\" + lnkName.Text;
if (File.Exists(FilePath))
{
StringBuilder strStatement =newStringBuilder(File.ReadAllText(FilePath).ToString());
SqlCommand command =newSqlCommand(strStatement.ToString(), con);
command.ExecuteNonQuery();
con.Close();
}
}
```

cheers!!!

Reply Quote

K Niti 0 Points

Monday, May 10, 2010 7:32 AM

0

Sign In to Vote

Hi Frnds U can use built in Installer Class to run ur Script

U will find the Details along with the source code download in Below link

http://www.codeguru.com/Csharp/.NET/net_security/encryption/article.php/c9601/

Reply Quote

AdamFool 0 Points

Thursday, May 20, 2010 4:58 PM

0

Sign In to Vote

I was getting the same msvcr80.dll errors on some machines.

It only occurred if the code was executed as part of a unit test.

The same code ran fine in non-test assemblies.

Installing the Visual Studio 2008 SP1 service pack resolved the errors.

Reply Quote

Megha Dave (Partner) 0 Points

Thursday, June 10, 2010 12:54 PM

0

Sign In to Vote

Hi Friend,

i have used the same namespaces you have mentioned but now on production server it is not working. (SMO is installed on production server already) .

Did you get any solution ? Please help me.

Thanks & Regards,

MEgha

Reply Quote

Arthis 0 Points

Monday, September 20, 2010 9:19 AM

0

Sign In to Vote

Hello,

At the line:
server.ConnectionContext.ExecuteNonQuery(script);
I'm getting this error:

```
Test method IsItScienceFiction.Tests.UserTest.TestMethod1
threw exception:
System.Reflection.TargetInvocationException: Exception has
been thrown by the target of an invocation. --->
System.TypeInitializationException: The type initializer for
'<Module>' threw an exception. --->
<CrtImplementationDetails>.ModuleLoadException: The C++
module failed to load during appdomain initialization.
  --->  System.DllNotFoundException: Unable to load DLL
'MSVCR80.dll': The specified module could not be found.
(Exception from HRESULT: 0x8007007E).
```

with this stack trace:

_encode_pointer(Void*)
_initatexit_app_domain()
LanguageSupport.InitializePerAppDomain(LanguageSupport*)
LanguageSupport._Initialize(LanguageSupport*)
LanguageSupport.Initialize(LanguageSupport*)
ThrowModuleLoadException(String errorMessage, Exception innerException)
ThrowModuleLoadException(String , Exception)
LanguageSupport.Initialize(LanguageSupport*)
cctor()
Microsoft.SqlServer.Management.Common.ExecuteBatch.GetStatements (String sqlCommand)
System.RuntimeMethodHandle._InvokeMethodFast(Object target, Object[] arguments, SignatureStruct& sig, MethodAttributes methodAttributes, RuntimeTypeHandle typeOwner)
System.RuntimeMethodHandle.InvokeMethodFast(Object target, Object[] arguments, Signature sig, MethodAttributes methodAttributes, RuntimeTypeHandle typeOwner)
System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder binder, Object[] parameters, CultureInfo culture, Boolean skipVisibilityChecks)
System.Reflection.RuntimeMethodInfo.Invoke(Object obj, BindingFlags invokeAttr, Binder binder, Object[] parameters, CultureInfo culture)
System.RuntimeType.InvokeMember(String name, BindingFlags bindingFlags, Binder binder, Object target, Object[] providedArgs, ParameterModifier[] modifiers, CultureInfo culture, String[] namedParams)
System.Type.InvokeMember(String name, BindingFlags invokeAttr, Binder binder, Object target, Object[] args, CultureInfo culture)
Microsoft.SqlServer.Management.Common.ServerConnection.GetStatements (String query, ExecutionTypes executionType, Int32& statementsToReverse)
Microsoft.SqlServer.Management.Common.ServerConnection.ExecuteNonQuery (String sqlCommand, ExecutionTypes executionType)
Microsoft.SqlServer.Management.Common.ServerConnection.ExecuteNonQuery (String sqlCommand)
IsItScienceFiction.Tests.UserTest.TestMethod1() in C:\Users\J. Pablo Fernández\Documents\Visual Studio 2008 \Projects\IsItScienceFiction\IsItScienceFiction.Tests\UserTest.cs: line 75

I am running Visual Studio 2008 with SQL Server 2008. What am I doing wrong?

Hi Pablo,

I experience the same issue. Did you ever find a solution?

Yoann

Reply Quote

John At Han (Partner) 0 Points

Friday, December 03, 2010 7:26 PM

```
SQLscript = SQLscript.Replace("GO","");
```

0

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Warning, replacing systematically all GO in the text could break the Script, Imagine that you have to SELECT CATE**GO**RY FROM WHATEVER

John

Reply Quote

Urvang_Joshi_fe6d51 30 Points

Sunday, December 12, 2010 10:06 PM

0

Hi, one question: How do I find out the output generated by a command (e.g. a select command) in this example?

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Reply Quote

DeJava 0 Points

Saturday, December 18, 2010 11:20 PM

0

Here to work with GO:

To split the GO (in assumtion that GO syntax in a line):

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```
List<string> cmds = new List<string>();
if (File.Exists(qfile))
{
 TextReader tr = new StreamReader(qfile);
 string line = "";
 string cmd = "";
 while ((line = tr.ReadLine()) != null)
 {
  if (line.Trim().ToUpper() == "GO")
  {
   cmds.Add(cmd);
   cmd = "";
  }
  else
  {
   cmd += line + "\r\n";
  }
 }
 if (cmd.Length > 0)
 {
  cmds.Add(cmd);
  cmd = "";
 }
 tr.Close();
}
```

Then execute them in a connection to SQL:

```
if (cmds.Count > 0)
{
 SqlCommand command = new SqlCommand();
 command.Connection = new SqlConnection(cs);
 command.CommandType = System.Data.CommandType.Text;
 command.Connection.Open();
 for (int i = 0; i < cmds.Count; i++)
 {
  command.CommandText = cmds[i];
  command.ExecuteNonQuery();
 }


}
```

Reply Quote

Niven Sookharan 0 Points

Tuesday, March 29, 2011 7:55 AM

0

Sign In to Vote

Great works perfectly :)

Reply Quote

Cor Ligthert (MCC, MVP) 89,860 Points

Monday, May 09, 2011 8:10 AM

0

Sign In to Vote

Hello Bex,

It is very simple, you can start from C# any SP.

you have to instance a command for your database provider

YourProviderCommand cmd = new YourProviderCommand("file.SQL");
to add the connectionstring to that one
cmd.ConnectionString = "myConnectionsTring";
to tell that it is an SP
cmd.CommandType = CommandType.StoredProcedure;

And run the command with

cmd.ExecuteNonQuery();

That is all, quite simple

Success
Cor

Reply Quote

Saravanan AR 0 Points

Sunday, November 20, 2011 1:26 AM

0

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hi boban,

thanks for the simple solution. it works perfectly when my machine and DB server are in the same domain. my problem now is, i'm executing this console application from a machine (name: X, user id: abc, domain D1). the SQL server is in another machine (name: Y, domain: D2). I use VPN to connect to machine Y with user id 'abc' and work on SQL in remote desktop. how can i run sql scripts across domains? I use this in a custom activity in my TFS build template as the last step to run the scripts in the target database which is in domain D2.

i'm getting this error: "A network-related or instance-specific error occurred while establishing a connection to SQL Server. The server was not found or was not accessible. Verify that the instance name is correct and that SQL Server is configured to allow remote connections. (provider: SQL Network Interfaces, error: 26 - Error Locating Server/Instance Specified)"

is it possible to connect to the DB using the admin user ID of machine Y in domain D2?

Reply Quote

msdnbee 0 Points

Wednesday, December 21, 2011 10:47 AM

0

Sign In to Vote

Hi,

```
To add the below assembly/interface
using Microsoft.SqlServer.Management.Common;
using Microsoft.SqlServer.Management.Smo;

which COM object do i need to reference.
I am using VS 2010 Express.
```

sami

Reply Quote

Surendrasinh Rathod .Net Developer,Silcore T... 0 Points

Friday, May 18, 2012 5:13 AM

0

Sign In to Vote

Thanks for Post above code....I want to ask that can i apply same code to run .sqlce file in .Net C#..i am using SqlCe 3.5 and Visual Studio 2008..plz reply..thanks in advance..

Reply Quote

JohnDetroit 0 Points

Monday, June 18, 2012 11:01 AM

0

Sign In to Vote

Try this article: SQL Connection in C# using SqlConnection

Reply Quote

Star Vignesh 0 Points

Monday, August 27, 2012 8:59 AM

0

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You can't run files directly, with just specifing file name. You must first read it's content in a string and then execute CommandText command.
But this will work as long you don't have GO statement in your sql script. From your post it looks like that SqlCommand is not usefull because scripts that include DDL command are completed with batch finalizer GO command. Luckily, since SQL Server 2005, you can use smo library to do this operation and not use batch command and osql connection as previously.
Here is how to do it:

```
using System.Data.SqlClient;
using System.IO;
using Microsoft.SqlServer.Management.Common;
using Microsoft.SqlServer.Management.Smo;
namespace ConsoleApplication1
{
    class Program
    {
        static void Main(string[] args)
        {
            string sqlConnectionString = "Data Source=
(local);Initial Catalog=AdventureWorks;Integrated
Security=True";
            FileInfo file = new FileInfo("C:\\myscript.sql");
            string script = file.OpenText().ReadToEnd();
            SqlConnection conn = new SqlConnection
(sqlConnectionString);
            Server server = new Server(newServerConnection
(conn));
            server.ConnectionContext.ExecuteNonQuery(script);
        }
    }
}
```

Very useful code...

Reply Quote