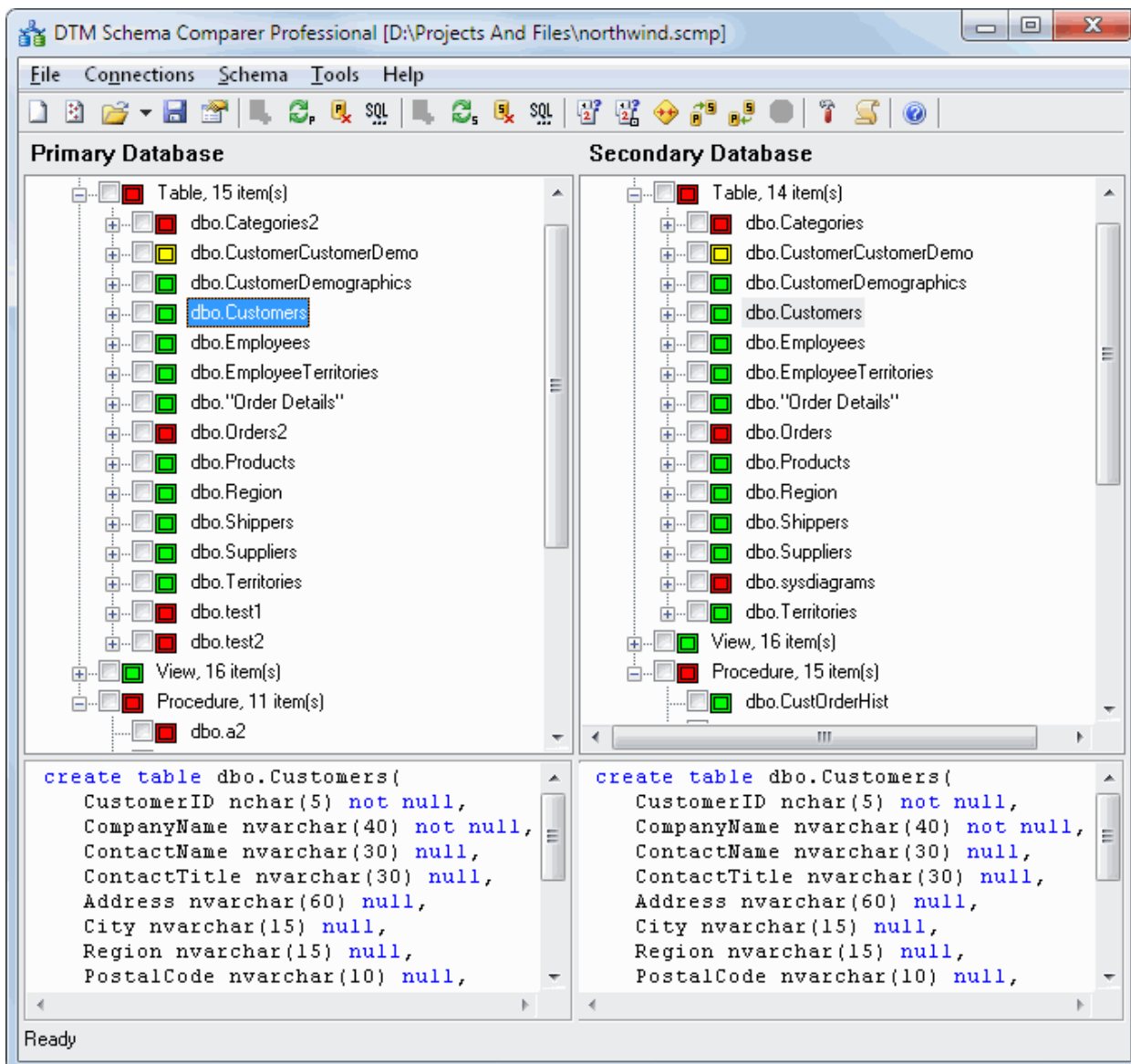


DTM Schema Comparer is a tool for database schemas comparison and synchronization. The comparison process supports tables (with columns properties like data type, size, defaults, etc), views, indexes, triggers, primary and foreign keys and stored procedures. The visual representation of database schemas as a tree makes the comparison process more comfortable. The built-in SQL [text comparison tool](#) allows you to view two scripts with differences displayed in a comfortable way.

The synchronous navigation through the schemas tree allows you to easily compare items in as detailed way as you need.

The main window of the tool contains database schemas in the form of a tree with icons for displaying the comparison results or '?' signs if the comparison process is not completed yet. The legend of icons is described below. The text boxes show the texts of the database objects currently selected with the syntax highlighting feature. The SQL window shows text for the currently selected database object (table, view, procedure, etc.). Also, you can open the "[SQL text comparison tool](#)" window using the 'Compare texts' button.

There are four icons for nodes in the schema tree. The question sign means the comparison process is not completed yet. If you are already connected to both databases, click the "Compare" button to start the process. Please be patient, the comparison process for complex schemas may take several minutes or (for thousands of database objects) even dozen minutes. The red icon means objects (or their child objects) are not equal. The yellow icon means objects have the same name, but different internal structure. The green icon means objects are equal.



DTM Schema Comparer is a Windows application, known to be compatible with the following operating systems: Windows XP, Windows 2003 and newer Server family and Windows Vista, 7, 8/10 (desktop). The 64-bit edition is also available.



Quick Start: [how to connect?](#)

There are five ways to connect to a database:

1. [Direct connection](#)
2. Connection to [desktop files](#)
3. [Data source](#) with ODBC, IDAPI or Oracle Call Interface (OCI)
4. [DSN File](#) connection
5. [OLE DB](#) connection

In all modes the "Test" and "Information" buttons, as well as tools for working with connection [profiles](#) are available. "Test" button allows you to check information you entered and/or data source (or alias) configuration.

See also:

- Troubleshooting [guide](#)
- Connection [information](#)
- Connection [profiles](#)

## Connection Quick Start Guide

Database	How to connect
MS SQL Server	Enter or select server name at the <a href="#">direct connection</a> panel
Local SQL Server Express	Enter .\SQLEXPRESS as server name at the <a href="#">direct connection</a> panel
Oracle	1) Switch to <a href="#">data sources</a> mode 2) select OCI as "Interface" 3) select your service name from data source drop-down menu
DB2	Use <a href="#">direct connection</a> panel or Use predefined <a href="#">ODBC DSN</a> for custom connection settings
MySQL	<b>Install ODBC driver for MySQL from <a href="http://www.mysql.org">www.mysql.org</a></b> Use <a href="#">direct connection</a> panel or Use predefined <a href="#">ODBC DSN</a> for custom connection settings
PostgreSQL	Use <a href="#">direct connection</a> panel or Use predefined <a href="#">ODBC DSN</a> for custom connection settings
Interbase/Firebird	<b>Install ODBC driver</b> Use <a href="#">direct connection</a> panel or Use predefined <a href="#">ODBC DSN</a> for custom connection settings
Microsoft Access	1) Switch to " <a href="#">Desktop File</a> " panel 2) Select "Access" as file type, enter or select file name
Microsoft Excel	1) Switch to " <a href="#">Desktop File</a> " panel 2) Select "Excel" as file type, enter or select file name
<i>Another database</i>	1) Install ODBC driver for your database system 2) Create ODBC data source name using Windows ODBC Administrator 3) Switch to <a href="#">data sources</a> mode 4) select your data source from drop down menu

## Direct Connection

The direct connection method allows you to connect to most popular databases ([MS SQL Server](#), [Oracle](#), [Interbase/Firebird](#), [MySQL](#), [PostgreSQL](#) and [DB2](#)).

Enter the server name and the database name, if required. The user name and password are optional. Their necessity depends on the settings of your database. The owner name (schema) is optional too. The list of visible database objects depends on the choice of the owner. If the owner is empty, you will access all objects. There is important that schema/owner name is case sensitive.

If you do not find the required database type in the list or cannot connect directly, use a connection through the predefined data source. If DBMS is in the list, but unavailable, it means that either the required ODBC driver is not installed or it is not configured properly. During its use, the program stores the entered values of server names, users and owners. You can select a value from the stored list using the corresponding combo box. For some DBMS types (MS SQL, for example), the program can fill the list of available databases. Use the button with two arrows for this purpose.

Direct Database Connections to most popular databases

Microsoft SQL Server

Oracle Database

MySQL

Interbase/Firebird

IBM DB2

PostgreSQL

Note: If you do not find the required database type in the list or cannot connect directly, use a connection through the predefined Data Source.

Server: DTM-XP\SQLEXPRESS

Windows Authentication (trusted connection)

User (login): Admin

Password: [ ]

Database: Northwind

Owner/schema: dbo

Note: Express @XP

## DBMS-specific connection options

### Microsoft SQL Server

- "(local)", empty or "." server name means local server
- use <server name>\<instance name> syntax to identify instance. Example: .\SQLEXPRESS means SQL Express at the local system

### Oracle

Use connect string for the Oracle Server that you want to access as a Server name.

Important: it is strongly recommended to use native Oracle Call Interface ([OCI](#)) instead of direct connection.

### Interbase and Firebird

Examples:

- Server: **localhost** and Database **c:\interbase\myDb.fdb** - connect to specified DB on local system.
- Server: **172.17.2.10/3051** and Database **/usr/local/db/myDb.fdb** - connect to specified server with alternate port 3051 on remote system 172.17.2.10

### MySQL

- Use **localhost** for local MySQL
- `example.com;port=3306` means MySQL at example.com on 3306 port

## DB2

**ServerName;port=5000;protocol=TCPIP** as a server name means connect to ServerName, use 5000 port and TCP/IP protocol.

## PostgreSQL

**ServerName** as a server name means connect to ServerName, use 5432 port and TCP/IP protocol. Database name is required. localhost as a server name is acceptable. To specify custom port you should add `";port=NNNN"` string to server name.

**server\_name\_or\_ip-address;port=5432;DATABASE=dbname**

## Desktop Files

The second way is designed for connecting to desktop data files. Select the required format and specify the file name or the directory where the data is located. Other parameters are optional.

Connections to Desktop Data File

Text file (\*.txt, \*.csv)    Format : CustomDelimiter    ANSI    Delimiter : |

Microsoft Access file (\*.mdb, \*.accdb)     use Microsoft Jet (ODBC by default)

dBase, FoxBase or FoxPro file (\*.dbf)

Microsoft Excel file (\*.xls, \*.xlsx, \*.xlsb)

Paradox file (\*.db)

FoxPro database container (\*.dbc)

SQLite database

Location: D:\Projects And Files\tickets.mdb    Browse...

Authentication information, optional:     Read Only mode

User / Login:

Password:     Note: Tickets

## Predefined data sources: ODBC, IDAPI, Oracle Call Interface

A connection with the use of a data source is the most universal. You can select ODBC, IDAPI or OCI (if installed) interface and the preconfigured data source name. In this case, other options are similar to those of a direct connection. The "Manage" button allows you to get access to the external configuration utility if it is available. When you want to access the tables belonging to the single database schema (or owner), you should fill the "owner" entry; otherwise, all tables will be accessed.

Connections to existing and configured data sources

Interface	<input type="text" value="ODBC"/>	<input type="checkbox"/> Manual commit
Data source	<input type="text" value="localserver"/>	<input type="button" value="Manage..."/>
User (login)	<input type="text" value="sa"/>	
Password	<input type="password" value="xxxxxx"/>	
Database	<input type="text" value="Northwind"/>	
Owner	<input type="text" value="dbo"/>	
Note	<input type="text" value="Local SQL Server"/>	



## DSN File

The fourth way is using a DSN file. For this case, just select the file name with DSN definition.

Connections to existing and configured file DSN

File DSN name

Note

## OLE DB connection

Use 'Configure' button to specify connection information. Password and owner fields are optional.

Connections using OLE DB providers

Connection properties Configure...

```
Provider=SQLOLEDB.1;  
Persist Security Info=False;  
User ID=sa;  
Initial Catalog=Northwind;  
Data Source=DTM-ACER2;  
Use Procedure for Prepare=1;  
Auto Translate=True;  
Packet Size=4096;
```

Password

Owner

Note

## Connection Profiles

Connection profile helps you to save information about your connection (interface, data source or alias name, user name (login), password and database name, etc) and get access it by the one click.

Please fill connection properties and press "Add as new" to add a new profile. To modify the profile you should select it from the list at the top of the window, modify properties and press "Update". "Delete" button works when you select the profile to be deleted in the list.

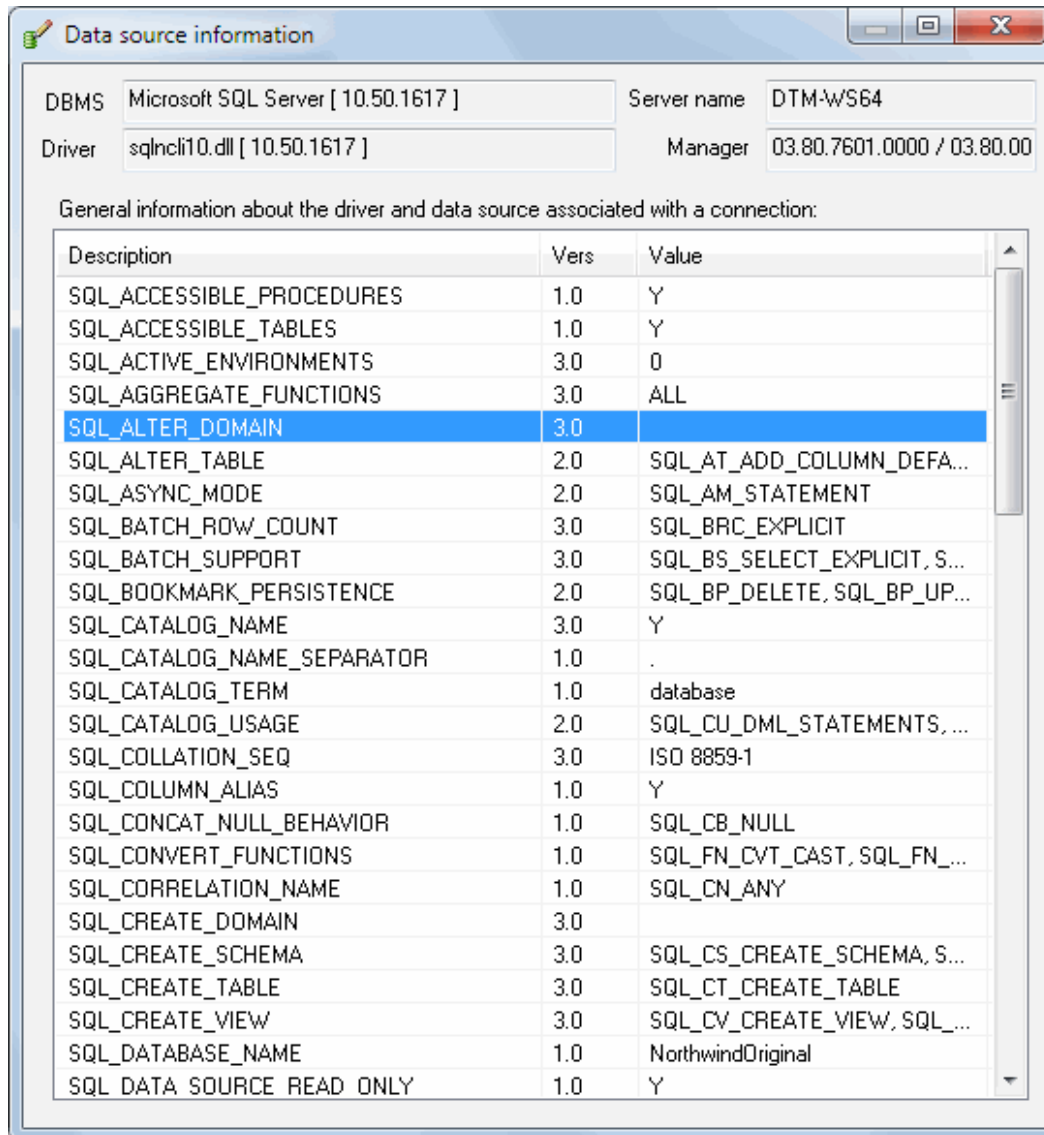
"Save" and "Load" buttons allow you to save profiles to the disk file or load them. The "Export one" button helps to save single currently selected profile.

Important: all profiles are shared between all installed DTM soft products. That means once created profile can be used with any tool. At the other side if you remove the profile from the list you can't use it with DTM soft's products anymore.

Connection Profiles						
Mode	Interface	Source or Server	User	Owner	Database	Note
Direct	ODBC	.			Northwind	Local server
Direct	ODBC	DTM-XP	sa		AdventureWorks	
Direct	ODBC	.		dbo	NorthwindOriginal	Local Read Only DB
DSN	ODBC	Saramdb				SaraMDB
DSN	ODBC	test_new				Test MDB
Desktop	ODBC	ACCESS				Test MDB
DSN	ODBC	test_old				Test MDB
Direct	ODBC	.		dbo		
Direct	ODBC	.		dbo		2
DSN	OCI	ORCL	OE			ORCL/OE
DSN	ODBC	ORCL_ODBC	OE	OE		ORCL/ODBC
DSN	OCI	10G	OE			Oracle 10g (VM)

## Connection Information

The program provides detailed database, connection and driver information and properties. The "Information" button at the connect window allows you to view it.



The screenshot shows a window titled "Data source information" with the following fields:

- DBMS: Microsoft SQL Server [ 10.50.1617 ]
- Server name: DTM-WS64
- Driver: sqlncli10.dll [ 10.50.1617 ]
- Manager: 03.80.7601.0000 / 03.80.00

General information about the driver and data source associated with a connection:

Description	Vers	Value
SQL_ACCESSIBLE_PROCEDURES	1.0	Y
SQL_ACCESSIBLE_TABLES	1.0	Y
SQL_ACTIVE_ENVIRONMENTS	3.0	0
SQLAggregate_FUNCTIONS	3.0	ALL
SQL_ALTER_DOMAIN	3.0	
SQL_ALTER_TABLE	2.0	SQL_AT_ADD_COLUMN_DEFA...
SQL_ASYNC_MODE	2.0	SQL_AM_STATEMENT
SQL_BATCH_ROW_COUNT	3.0	SQL_BRC_EXPLICIT
SQL_BATCH_SUPPORT	3.0	SQL_BS_SELECT_EXPLICIT, S...
SQL_BOOKMARK_PERSISTENCE	2.0	SQL_BP_DELETE, SQL_BP_UP...
SQL_CATALOG_NAME	3.0	Y
SQL_CATALOG_NAME_SEPARATOR	1.0	.
SQL_CATALOG_TERM	1.0	database
SQL_CATALOG_USAGE	2.0	SQL_CU_DML_STATEMENTS, ...
SQL_COLLATION_SEQ	3.0	ISO 8859-1
SQL_COLUMN_ALIAS	1.0	Y
SQL_CONCAT_NULL_BEHAVIOR	1.0	SQL_CB_NULL
SQL_CONVERT_FUNCTIONS	1.0	SQL_FN_CVT_CAST, SQL_FN_...
SQL_CORRELATION_NAME	1.0	SQL_CN_ANY
SQL_CREATE_DOMAIN	3.0	
SQL_CREATE_SCHEMA	3.0	SQL_CS_CREATE_SCHEMA, S...
SQL_CREATE_TABLE	3.0	SQL_CT_CREATE_TABLE
SQL_CREATE_VIEW	3.0	SQL_CV_CREATE_VIEW, SQL_...
SQL_DATABASE_NAME	1.0	NorthwindOriginal
SQL DATA SOURCE READ ONLY	1.0	Y

## Troubleshooting Guide

Problem description	Possible reason	Solutions
Required database type not present in the list at Direct Connection and Desktop Connection pages		Switch to "data source" connection mode and select data source from the list or configure new one with "Manage" button.
Required format is in the <a href="#">direct connection</a> list, but not available (disabled).	ODBC driver for your database does not installed or not configured properly.	Install required driver. If it is already present in the system, please contact our <a href="#">support staff</a> .
Errors during direct connection.	Compatibility problems.	Try to create data source for your database connection.
Login error for correct user name and password.	Read-only desktop data file.	Try to change file mode to 'read and write'.
I can't see relationships, defaults, etc in my Access Database.	Access interface.	Try to switch on "Use Microsoft Jet" check box at the "Desktop File" page of the Connect Window.

## Product Versions

There are two versions of the software product. Please refer the following table to explore differences between the product versions.

<b>Option</b>	<b>Standard</b>	<b>Professional</b>
Schema synchronization feature	No, comparison only	Yes
Comparison report modes	Full only	Full, brief or summary
<a href="#">Console</a> mode	No	Yes
<a href="#">s1 and s2</a> command line switches	No	Yes

How does the program compare database schemas?

The utility compares tables item by item: if the names of tables are equal program compares the lists of columns. If the names of two columns are equal, it compares their types, sizes, decimal digits (if applicable), nullability, default values, check constraints, comments (or MS\_Description for SQL Server if available) primary and foreign keys.

For other database objects, the program compares the SQL scripts of procedures, triggers, views, etc.

Note: indexes and triggers associated with a table are placed in a separate sub-tree and the program compares them independently of their table.

There are three comparison and synchronization levels:

1. By default, the program compares complete schemas according to object types of the [project properties](#).
2. In case **filter** strings in the [project properties](#) are not empty, the program includes or excludes some objects from the database schema.
3. By manual selection\*. The program allows the user to specify objects to be compared or synchronized manually. The user should use check-boxes with objects in the schema tree to make the selection. For this feature "compare checked" or "sync checked" menu item must be used.

\* - not compatible with [console mode](#).

Filter examples:

"system" exclude filter means "system124", "my\_system" or "my\_system124" tables will not be included in the schema tree.

"order" include filter means "coord" or "nord" tables will be skipped during schema tree building.

See also: [comparison or synchronization performance](#)

## Compare Text Window

This window shows the text of two database objects and shows similarities and differences between them in the form of a color schema and text lines placement. Like the main window of the program, this window is divided into two parts corresponding to the objects of the primary and secondary databases. The cursor is synchronous. It takes the same position in both scripts simultaneously if there is such a position and it is possible.

Those lines in the scripts that have a green background are entirely equal. They are placed on the same level.

Otherwise, those lines that have a red background do not coincide with this line in the other script. Yellow lines are similar, but not equal.

```
Person.Contact | Person.Contact
-----|-----
create table Person.Contact(| create table Person.Contact(|
ContactID int identity not null, | ContactID int identity not null, |
NameStyle nvarchar(8) not null, | NameStyle bit default ((0)) not null, |
Title nvarchar(8) null, | Title nvarchar(8) null, |
FirstName Name not null, | FirstName nvarchar(50) not null, |
MiddleName Name null, | MiddleName nvarchar(50) null, |
LastName Name not null, | LastName nvarchar(50) not null, |
Suffix nvarchar(10) null, | Suffix nvarchar(10) null, |
EmailAddress nvarchar(50) null, | EmailAddress nvarchar(50) null, |
EmailPromotion int default ((0)) not null check ((EmailPromotion)>= | EmailPromotion int default ((0)) not null check ((EmailPromotion)>= |
Phone Phone null, | Phone nvarchar(25) null, |
PasswordHash varchar(40) not null, | PasswordHash varchar(40) not null, |
PasswordSalt varchar(10) not null, | PasswordSalt varchar(10) not null, |
AdditionalContactInfo xml null, | AdditionalContactInfo xml null, |
rowguid uniqueidentifier rowguidcol default (newid()) not null, | rowguid uniqueidentifier rowguidcol default (newid()) not null, |
ModifiedDate datetime default (getdate()) not null | ModifiedDate datetime2 default (getdate()) not null |
) | ) |
alter table Person.Contact | alter table Person.Contact |
add constraint PK_Contact_ContactID | add constraint PK_Contact_ContactID |
primary key (ContactID) | primary key (ContactID) |
```

Note: you can use external third party text comparison tool. Please refer to [settings](#) for details.





## Comparison Report

The program can generate comparison HTML-report. Comparison report consist of three columns: item type, primary and secondary item's name or definition. Green background of the items means they are completely identical. Yellow color means the objects have the same name but different structure or test. And red items have no corresponding item in the another schema. The last type of items we also mentioning as "orphaned".

To allow the program to generate the report you should enter or select report name at the [Project Properties](#) window. The program can include into report only differences across to related option.

The standard [version](#) of the program generates the full report only. Professional version can also create the brief report (without subitems like table's columns) or summary only.

The comparison and synchronization process has three steps: schema loading, comparison and, if necessary, script generation. In DTM Schema Comparer, we have optimized all steps. Typically performance is shown in the following table:

<b>Operation</b>	<b>Performance<sup>1</sup></b>
Schema loading	18.1 objects per second <sup>2</sup>
Comparison	4.9 complex objects per second <sup>2</sup>
Comparison	56.4 simply objects per second <sup>3</sup>
Script generation	~170 statements per second

1) - Standard version with middle scale databases with about 680 tables in the primary database and about 460 in the secondary and about 40% differences. For this test, we used local SQL Server 2000 at the desktop system (Windows XP with 2 GHz CPU and 2Gb RAM).

2) - that means you need about 8.5 minutes to compare two 1000-tables databases with default settings in the same conditions.

3) - the complex object has child items like columns, related primary key, etc. Simply object has no child objects (view, procedure, trigger, etc).

**Hot Keys**

<b>Hotkey</b>	<b>Function or Option</b>
Ctrl+1	Open <a href="#">SQL console</a> for the primary database
Ctrl+2	Open <a href="#">SQL console</a> for the secondary database
Ctrl+A	Open "About the program" window
Ctrl+I	Run the comparison for selected items
Ctrl+L	View log file
Ctrl+N	Create new empty project file
Ctrl+O	Load Project file from the disk
Ctrl+P	Open project <a href="#">properties</a> window
Ctrl+Q	Quit the program
Ctrl+S	Save Project file to the disk
F1	Open help
F2	Open the <a href="#">connect</a> window for left (primary) database
F3	Open the <a href="#">connect</a> window for right (secondary) database
F4	Open compare text <a href="#">dialog</a>
F5	Run database schema comparison
F6	Run database schema synchronization: modify primary to secondary state
Ctrl+F6	Run database schema synchronization: modify secondary to primary state
F7	Open <a href="#">settings</a> window



# Project Wizard

This wizard helps you to create a new project and specify its properties. It contains two pages: connections and new project properties.

**Project Connections**

This wizard helps you to create new comparison project. At the first page you will specify connections for primary and secondary databases. At the second you will specify comparison and synchronization options.

Select connection to Pprimary database

SQL Server Native Client 10.0: .//dbo/NorthwindOriginal [Local Northwind DB]

Select connection to Ssecondary database

SQL Server Native Client 10.0: .//s2/Northwind [Local Northwind DB]

Show this window at the program startup when no recent project is present

Next > Cancel

**Project Properties**

Comparison options, type of objects to be compared :

<input checked="" type="checkbox"/> Tables	<input checked="" type="checkbox"/> Data Type Code	<input checked="" type="checkbox"/> Primary key
<input type="checkbox"/> Views	<input checked="" type="checkbox"/> Data Type Name	<input type="checkbox"/> Column comments
<input type="checkbox"/> Procedures	<input checked="" type="checkbox"/> Column size	<input checked="" type="checkbox"/> Check constraints
<input type="checkbox"/> Indexes	<input checked="" type="checkbox"/> Decimal digits	<input type="checkbox"/> Table comments
<input type="checkbox"/> Triggers	<input checked="" type="checkbox"/> Nullability	<input checked="" type="checkbox"/> Foreign keys (Relationships)
	<input checked="" type="checkbox"/> Default value	

Synchronization options :

<input checked="" type="checkbox"/> Allow to Create objects
<input checked="" type="checkbox"/> Allow to Drop objects
<input checked="" type="checkbox"/> Allow to Alter objects

Project Description: Test and Production database comparison

Author: Alex

Names are case sensitive

Create comparison report, HTML format

d:\testVSprod.html

Include Different items only      Report Mode: Full Report

Save synchronization SQL/DDDL script to disk file automatically

Generate SQL script only, do not synchronize schemas

Filter. Exclude objects with sys. , show only objects with

Save Cancel



## Project Properties

This window helps you to modify project properties. Please note that you can change some default project properties at the [Settings Window](#).

Most important options are:

- Type of objects that the program should compare.
- Allowed synchronization operations (create, drop, alter).
- [Comparison report](#) options.
- The optional file name for generated synchronization script.
- The filter is substring that object name should contain or not contain.

Project Properties

Comparison options, type of objects to be compared :

<input checked="" type="checkbox"/> Tables	<input checked="" type="checkbox"/> Data Type Code	<input checked="" type="checkbox"/> Primary key
<input type="checkbox"/> Views	<input checked="" type="checkbox"/> Data Type Name	<input type="checkbox"/> Column comments
<input type="checkbox"/> Procedures	<input checked="" type="checkbox"/> Column size	<input checked="" type="checkbox"/> Check constraints
<input type="checkbox"/> Indexes	<input checked="" type="checkbox"/> Decimal digits	<input type="checkbox"/> Table comments
<input type="checkbox"/> Triggers	<input checked="" type="checkbox"/> Nullability	<input checked="" type="checkbox"/> Foreign keys (Relationships)
	<input checked="" type="checkbox"/> Default value	

Synchronization options :

<input checked="" type="checkbox"/> Allow to Create objects
<input checked="" type="checkbox"/> Allow to Drop objects
<input checked="" type="checkbox"/> Allow to Alter objects

Project Description: Test and Production database comparison

Author: Alex

Names are case sensitive

Create comparison report, HTML format

d:\test\VSprod.html

Include Different items only      Report Mode: Full Report

Save synchronization SQL/DDL script to disk file automatically

Generate SQL script only, do not synchronize schemas

Filter. Exclude objects with sys. , show only objects with

Save Cancel

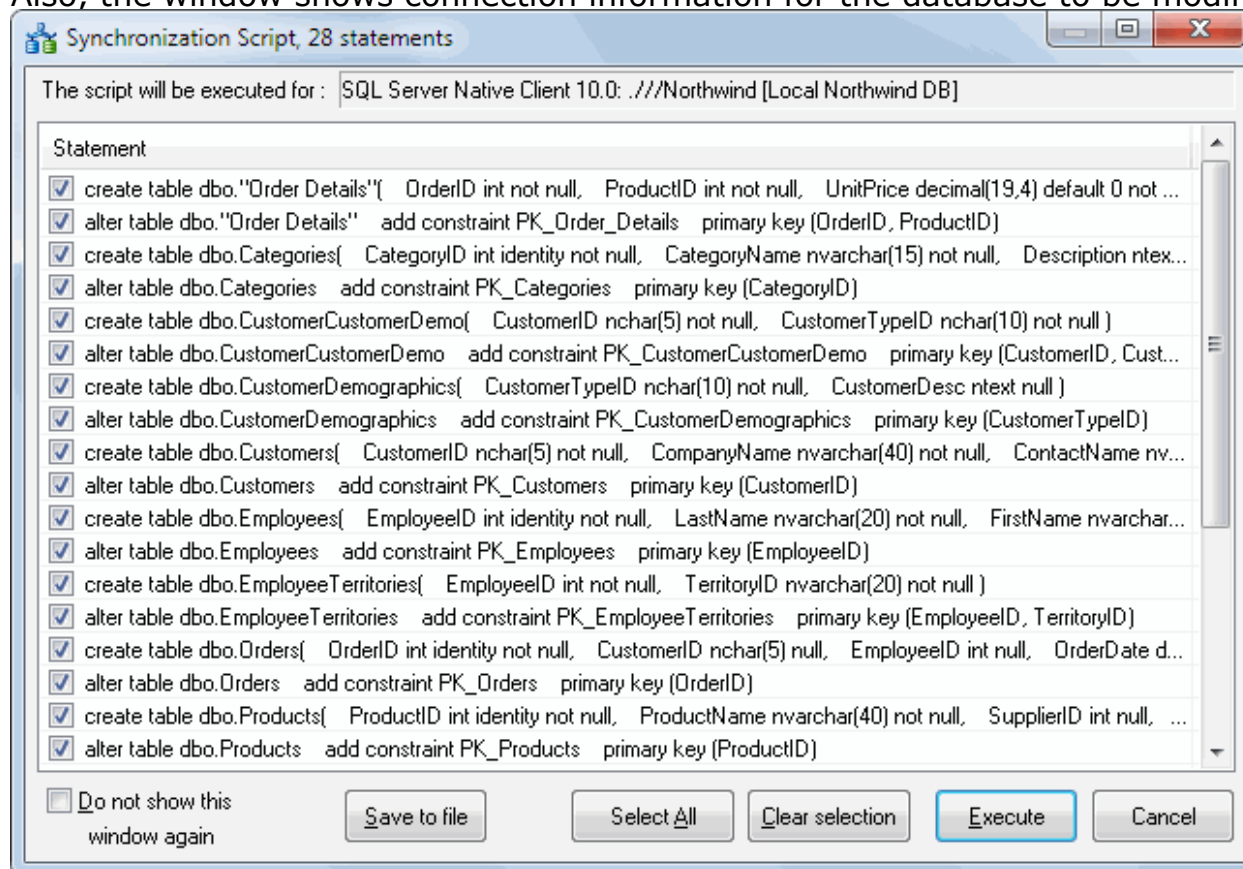
## Show Synchronization Script

This window shows the script that the program generates to synchronize databases.

The window allows the user to:

- Select SQL statements to be executed. All statements are selected by default.
- Save the synchronization script to file.
- Execute the script

Also, the window shows connection information for the database to be modified.





## Product Settings

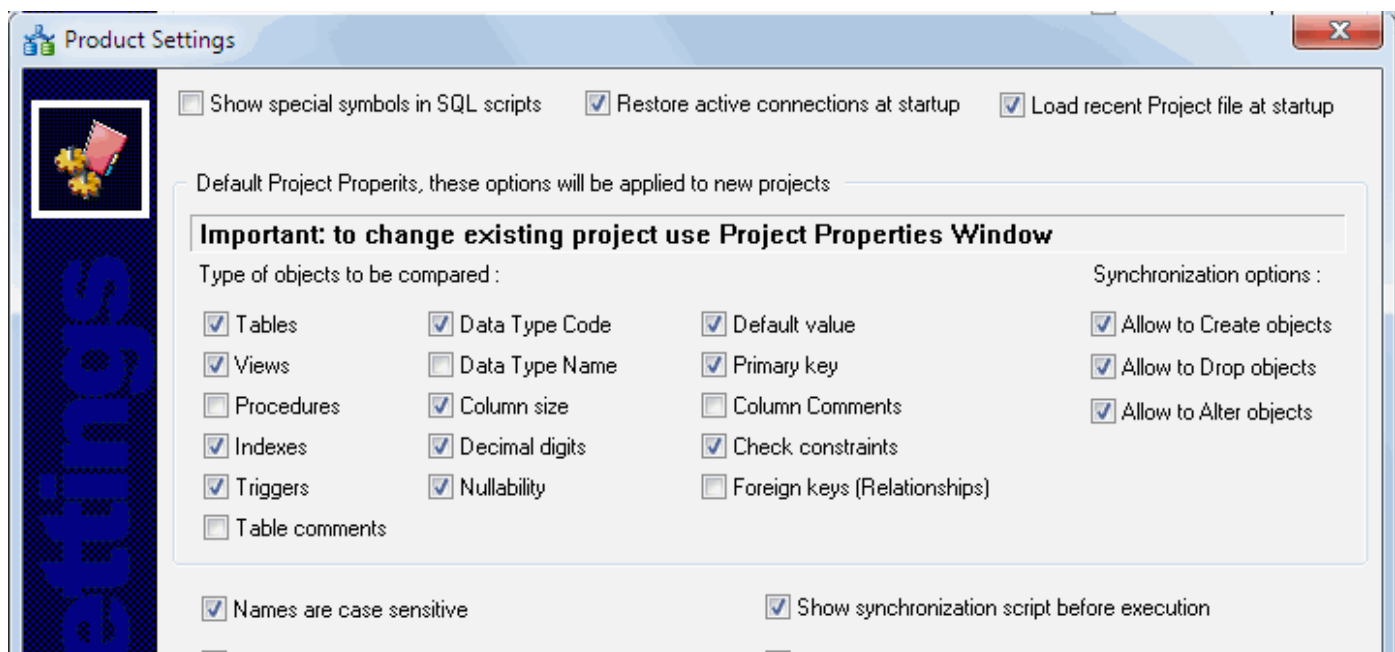
The program has some settings and options to make your work more comfortable. Don't forget to press "Save" button in "Settings" dialog to save the settings you chose.

There are two group of settings: general options and default project properties. The second group of settings is applicable to new projects only. To modify existing projects the user have to use [project properties](#) window.

The first settings group contains:

Option	Description	Default
Show special symbols	The program will show spaces and special symbols in the scripts if the option is switched on	No
Restore active connection	The program establishes recent connection automatically to reflect this option	Yes
Load recent project	The program loads recent project file automatically to reflect this option	Yes
Names are case sensitive	The program will ignore case if the option is switched off	Yes
Show Synchronization script	The program runs synchronization script without preview if the option is switched off	Yes
Show differences only in the report	The program shows equal objects in the report if the option is switched off	No
Ignorer owner/schema	The program does not use schema name in the comparison if the option is switched on	No
Use external test tool	The option allows users to specify external* <a href="#">text comparison tool</a> instead of built-in one.	No
Open report automatically	The program open default web browser with the comparison report if the option is switched on	Yes
Statement delimiter	The program will add this string after each SQL statement of the synchronization script	Empty
Log level	Logging option	Core

\* - the user should provide a complete command line for external tool execution. The full path is recommended.



Show Differences only in the comparison report  Ignore owner/schema name

Ignore schemas :

Use external text comparison tool

Command line :

Open comparison report automatically

SQL statement delimiter :

Log level :

## Command Line Options

DTM Schema Comparer supports following command line switches:

**-r** - if project configured, run comparison process at program startup

**-s1\*** - if project configured, run synchronization primary to secondary schema at program startup

**-s2\*** - if project configured, run synchronization secondary to primary schema at program startup

**-q** - quit application after project execution

**-c\*** - console mode.

\* - switch is available in the [professional](#) edition only.

The console mode is a mode when the program doesn't open any dialogs and doesn't need any interference from the user. A project for the console mode must be prepared and tested beforehand. This mode enables you to integrate the product with the Windows task scheduler as well as to execute projects prepared beforehand according to the schedule.

For example, in order to execute a project file today at 11.00, use the following command line:

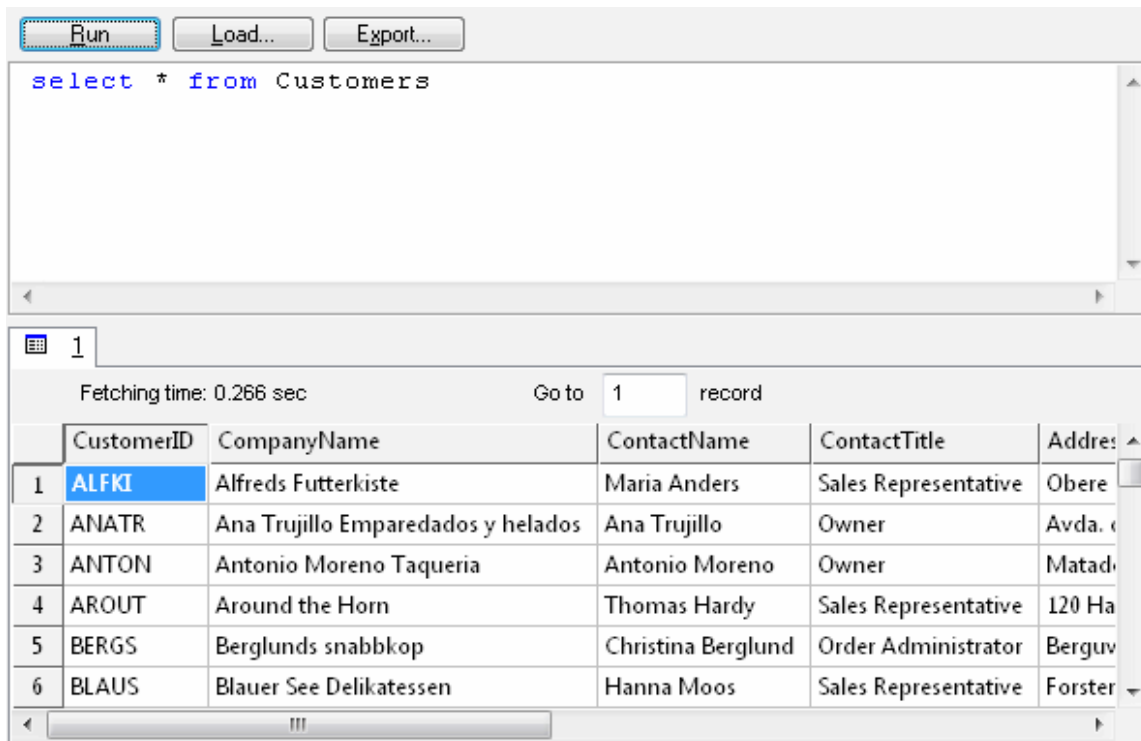
```
at 11:00 "scmp.exe -c -s1 d:\project.scmp"
```

Also, you can use project name as a command line parameter. Please note that you should use quotation for path or filename with spaces:

```
scmp.exe "D:\Projects And Files\test2testscr.scmp"
```

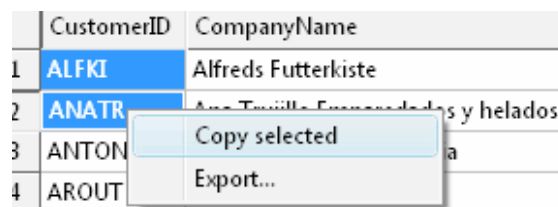
## Run SQL Statements

For both database connections, the comparison tool has a special window where you can specify and execute any SQL statements. You can copy the results of executing a statement onto the clipboard or export it into various formats like text, SQL, HTML, XML or Microsoft Excel. Placing the mouse cursor over the column header will show the type of data stored in this field.



Menu item "Load" allows you to read SQL script from external file.

There is a picture of local menu accessed by the right click inside the results window.



[DTM SQL Editor](http://www.sqledit.com/editor) ([www.sqledit.com/editor](http://www.sqledit.com/editor)) is a set of powerful database management tools that allow you to achieve two goals - to have unified access to different types of databases and to have a set of solutions that makes processing your data easy. DTM SQL Editor gives database users, developers and administrators an ability to access different databases, whether desktop or client-server ones (provided you have ODBC driver installed). This is very convenient, since most organizations use several different types of databases installed and each stores data in different formats and with varying parameters. Having a program that can get data from various sources is often essential. Furthermore, in addition to letting you quickly switch between different data sources, DTM SQL Editor lets you see database schema and results of the query execution.

[DTM Migration Kit](http://www.sqledit.com/mk) ([www.sqledit.com/mk](http://www.sqledit.com/mk)) is a powerful yet simple data migration tool that comes in handy if you run multiple databases. Use it to import, export or migrate data between different data sources (ODBC, OLE DB, or Oracle Call Interface supported). The program is fully automatic and supports all popular database formats. Simple visual interface lets you set own transformation and flow control rules to give you added flexibility.

[DTM Schema Reporter](http://www.sqledit.com/sr) ([www.sqledit.com/sr](http://www.sqledit.com/sr)) is a reporting tool for database schema. The program creates reports in RTF, HTML, XML or plain text formats and supports all common database interfaces - ODBC, OLE DB, or even Oracle Call Interface. This utility helps technical writers and database administrators create a report of any complexity level within seconds. Also, you can alter table order in the report and manually add annotations to the individual tables.

[DTM Data Generator](http://www.sqledit.com/dg) ([www.sqledit.com/dg](http://www.sqledit.com/dg)) is a simple, powerful and fully customizable utility that generates data for database testing purposes. Currently, database developers and administrators often have to spend hours of dull work to create test data sets before examining database performance. This tool makes all this unnecessary by automatically creating database objects AND sets of SQL statements, if necessary.

[DTM Data Editor](http://www.sqledit.com/de) ([www.sqledit.com/de](http://www.sqledit.com/de)) is a data viewer and editor for database professionals who are tired of wasting their time on mundane tasks. The program uses form-based interface and works with any ODBC data source. SQL statements are generated automatically and can be modified later. For data that has foreign key - primary key relation, there are options to enter values manually or select them from a list, which is much faster.

[DTM DB Stress](http://www.sqledit.com/stress) ([www.sqledit.com/stress](http://www.sqledit.com/stress)) is a utility for stress testing the server parts of information systems and applications, as well as DBMSs and servers themselves. This tool allows you to create and configure a continuous set of requests to the server of the OLAP (query execution) and OLTP (adding, modifying and deleting data in the database) types. At the same time, the user can flexibly change both the number and the priority of this or that type of requests to a database or an application.

[DTM Data Modeler](http://www.sqledit.com/dm) ([www.sqledit.com/dm](http://www.sqledit.com/dm)) is a CASE tool for database developers that supports both forward and reverse engineering. It is an easy-to-use tool allowing you to work both with logical and physical data models in the form of an entity-relationship diagram. The product is intended for database architects and developers and works with data sources via the ODBC interface, which means compatibility with all modern DBMS. Along with basic model properties (sets of entities and relationships between them), the program allows you to create indexes and triggers on the physical level corresponding to the tables of the database that is modeled.

[DTM Data Scrubber](http://www.sqledit.com/scr) ([www.sqledit.com/scr](http://www.sqledit.com/scr)) is a set of intelligent tools for data verification (audit) and scrubbing (cleaning). Depending on user-defined rules and data properties, the program either creates a report about the actual state of affairs or performs database data correction.

[DTM Data Comparer](http://www.sqledit.com/dcmp) (www.sqledit.com/dcmp) is a visual tool for data compare and synchronization. The program successively views the contents of both tables basing on the order of ascending of unique key values and shows differences or creates synchronization script.

[DTM Schema Comparer](http://www.sqledit.com/scmp) (www.sqledit.com/scmp) is a tool for database schemas comparison and synchronization. The comparison process supports tables, views, indexes, triggers and stored procedures. The visual representation of database schemas as a tree makes the comparison process more comfortable.

[DTM Query Reporter](http://www.sqledit.com/qr) (www.sqledit.com/qr) is a reporting tool for database query. This utility helps technical writers, developers and database administrators create a report based on database query within seconds.

[DTM Schema Inspector](http://www.sqledit.com/si) (www.sqledit.com/si) is a database schema browsing and management tool that let you work with database schemas more effectively.

[DTM DB Event](http://www.sqledit.com/event) (www.sqledit.com/event) is a database monitoring and management tool. This utility allows the user to define a few situations (events). For each event the user can define what the program should do if the event is occur.

[DTM Flat File Generator](#). Easy to use tool that helps any developer or QA engineer to create test data file. It supports tab-delimited, CSV, fixed width and custom separated output files. The generator has powerful import and export file structure features.

[DTM Test XML Generator](#). The tool is powerful generator for XML documents with structure defined by user and random but realistic data. More than 30 predefined generators with powerful pattern engine. The rich import XML structure options are available.

[DTM Data Generator for Excel](#) is a tool for text Excel spreadsheet population. Easy to use interface based on predefined generators, rich value library and high performance.

[DTM Data Generator for JSON](#) produces JSON files with defined structure in a bulk manner. Fast and easy structure editor and smart import options helps the user to generate test set in a few clicks only.

[DTM Database Content Analyzer](#) is a statistical tool for database content. It collects a few dozens of most interesting data: database objects size, value frequency, clusters, etc. This tool replaces and extends "Statistics" report of obsolete versions DTM Schema Reporter.





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### **What differences between the demo and full versions of the DTM Schema Comparer?**

#### **General functions**

- Demo version allows user to compare or synchronize only 1/2 of available tables of the schemas.
- Demo version replaces a few lines to DEMO string in the Text Compare tool.

#### **Supplemental functions**

- SQL console partially replaces result values to DEMO string.

No other demo limitations are present except nag-screen at program shutdown.



## How can I order DTM Schema Comparer software?

The software is available worldwide via the Internet. Secure online, mail/check and corporate purchase order options are available. For detailed information please click following link to open [order page](#) or copy <http://www.sqledit.com/scmp/order.html> to your web browser.

If you have any payment questions feel free to contact the DTM Schema Comparer technical support at [support@sqledit.com](mailto:support@sqledit.com)



## Program Installation

To run installation program:

- Open the windows Start menu and select "Run" item
- Select or enter installation file name and path (scmp.exe or scmp\_d.exe)\* and click OK

\* - professional and enterprise editions of the tool may have another suffix.

Notes:

- Please be sure that existing version of the tool is not running when you install a new version.
- We recommend to [uninstalling](#) old version of the DTM Schema Comparer before new version installation.
- Installation by administrator for another user is supported for most environments.



## Uninstall the Software

The Uninstall feature removes all installed DTM Schema Comparer components and all records in the Windows registry made by the installation script. You can uninstall this program by selecting the "**DTM Schema Comparer**" item in "**Add/Remove Programs Dialog**" in "**Control Panel**".

Another uninstallation way is to run "unins000.exe" from the product's folder directly.

**Important!** Uninstall feature of the program does not remove files and objects created by users such as configuration files, registry records etc.



## How to upgrade your copy of DTM Schema Comparer?

The user can refer to "Check for Update" features to get information about available updates.

Please contact our support staff at [support@sqledit.com](mailto:support@sqledit.com) to upgrade commercial version of the tool.

Demo version is available for [download](#) free of charge.

When you upgrade your copy of DTM Schema Comparer please send us the following information:

- You name, company name and how to contact you
- Payment information (at least "ORDER No" and "Date")

If you have some question or unusual problem feel free to contact the DTM Schema Comparer technical support at [support@sqledit.com](mailto:support@sqledit.com)

When you contact technical support, you should be prepared to provide the following information:

- DTM Schema Comparer version (you can find this information from About menu item of Help menu).
- Type and version of the ODBC or IDAPI driver or OLE DB provider.
- DBMS version and operating system version (including service pack version, if applicable).
- DTM Schema Comparer Log file.
- A description of what you do before the problem occurs.
- Error messages you see when the problem occurs.
- Your name, company name and how to contact you.

See Also: [log\\_file](#)





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**Database catalog** - The collection of system tables, tables that store metadata about that specific database.

**Database record** - one row in a table (table can be a result of SQL-query).

**Database schema** - logically connected, usually owner-based, set of DBMS objects (tables, views, procedures etc).

**DBMS** - database management system.

**DBMS connection** - the fact that both client and DBMS server have signed a contract and ready to query and data communications.

**Drag-n-drop** - the file manipulation technique when the mouse is used to move the file from the place of storage to the program, which performs processing.

**SQL language** - the declarative language used to manipulate the data and its' structure in the modern DBMS and their client applications.

**IDAPI** - Integrated Database Application Program Interface, unified DBMS access interface.

**OCI** - Oracle Call Interface, access interface for Oracle Server.

**ODBC** - Open Database Connectivity, unified DBMS access interface.

**Metadata** - information about data. See also: database schema

**SQL statement** - single SQL operator having the complete role in a data manipulation script.

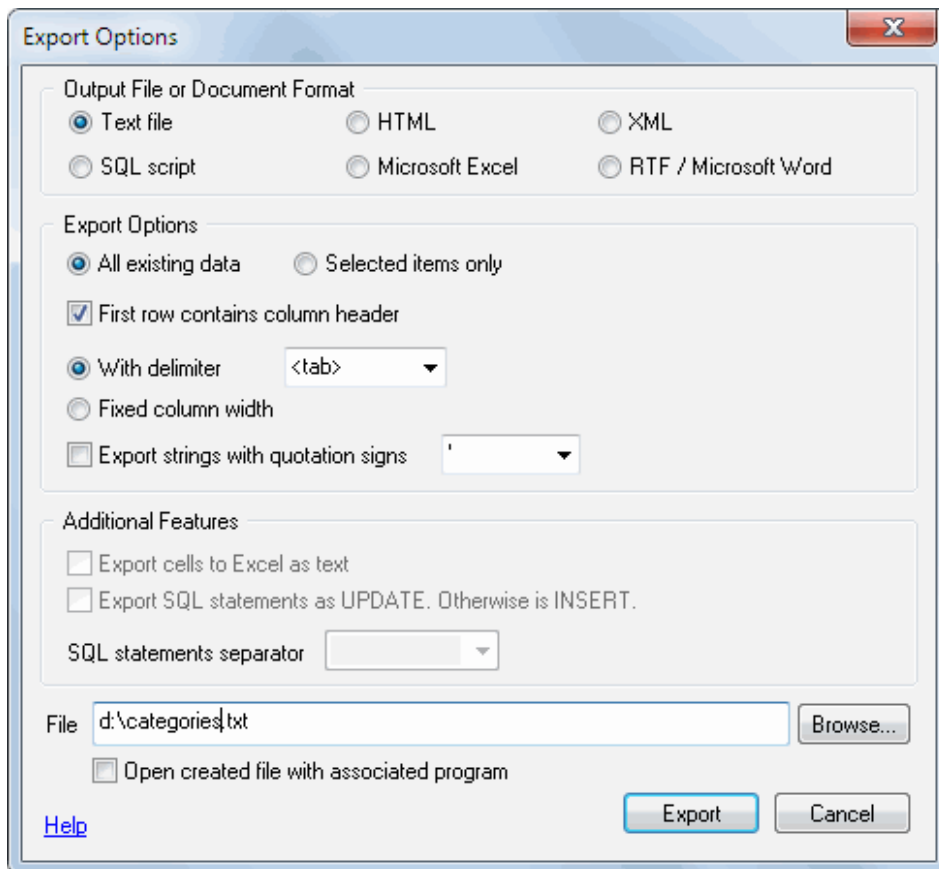
**SQL-server** - program or program complex, which is able to execute the SQL-queries.



## Export results of Query Execution

Types of export:

- text file with separators or with fixed columns width.
- HTML file
- XML document
- RTF document
- set of SQL statements (INSERT or UPDATE)
- direct to Microsoft® Excel (installed Microsoft Excel required)



**Warning!** Export for long binary data types (also known as BLOBs) is not supported.

## Clipboard support

Copy selected text onto Clipboard	Ctrl-Ins, Ctrl-C
Cut selected onto Clipboard	Shift-Del, Ctrl-X
Insert text from clipboard into cursor position	Shift-Ins, Ctrl-V

### Log file

When running the program, you have to select one of menu items from "**Tools->Log file**" in order to view or truncate your Log file. The log file contains the detailed description of any errors and other events that occurred while processing script.

Default log file location is product's directory and the name is ERROR.LOG. When the user has no enough permissions DTM Schema Comparer saves log to typical path like C:\Documents and Settings\\Application Data\scmp.log or C:\Users\\AppData\Roaming\scmp.log

The log file is a text file that contains three type of records:

1. The software product identification block: product name version and operating system information.
2. Error records: wrong SQL statements, exceptions, etc.
3. Notification and statistics.