

Revision History

Date	Author	Version*	Description
02/26/2007	Shirish Patel	1.0	Initial version
06/16/2013	Shirish Patel	2.0	Added new menus :- How old are the index usage stats? Index usage Identify indexes that have never been accessed Identify indexes that are being maintained but not used Potentially inefficient non-clustered indexes (writes > reads) Detailed activity information for indexes not used for user reads Identify locking and blocking at the row level Identify latch waits of over 15 milliseconds Identify lock escalations Identify indexes associated with lock contention Finding the most beneficial missing indexes
08/24/2013	Shirish Patel	3.0	Added new menus :- → Execute Get all db objects in the database Get all cross database dependencies Get all dependencies in the database Get all Foreign Key relationships in database Get all tables with NO Foreign Key relationships in database Get all Foreign Key relationships in database with entire table and column details Get all Input/Output Parameters of all UDF and SP How old are the index usage stats? Index usage Index fragmentation details Identify indexes that have never been accessed Identify indexes that are being maintained but not used Potentially inefficient non-clustered indexes (writes > reads) Detailed activity information for indexes not used for user reads Identify locking and blocking at the row level Identify latch waits of over 15 milliseconds Identify lock escalations Identify indexes associated with lock contention Finding the most beneficial missing indexes → Tools Import Flat File to DB
01/29/2015	Shirish Patel	4.0	Added new menus :- Tools → Express Profiler Execute → SQL Server 2014 → List of all COLUMNSTORE Index Segment creation details List of all the Memory Optimized Tables List of database bound to a resource pool Execute → Tests & Analysis List all heap tables List of all triggers and status List of all disabled indexes Execute → CLR Functions

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1 Overview

This software was developed by Shirish Patel and is intended to ease the database development and troubleshooting various parts of the database. It is a stand-alone windows application that can be used to connect to a SQL Server and analyze various database objects in the server.

Many of the features which are present in this software are the most commonly required features which is not provided directly by SQL Server Management Studio.

This software can be used by any developer / tester without the knowledge of structured query language.

SP Database Analyser is a very simple and fast SQL query tool. It was primarily designed to meet the everyday needs of ordinary database users who need to work with data first and foremost, rather than to design databases. It enables you to build queries on many different database servers without needing deep knowledge of SQL syntax and to work with data fast and easy.

The SP Database Analyser facilitates the process of building SQL by letting you quickly drag and drop tables to create queries, from simple to complex, and combine visual query building with direct SQL text editing.

The SP Database Analyser combines a powerful means of working with SQL queries, high-speed data retrieval, and one-click data export and printing to make your work with data more productive than ever before!

Handy for professionals and a must-have to newbies, the SP Database Analyser is free to use.

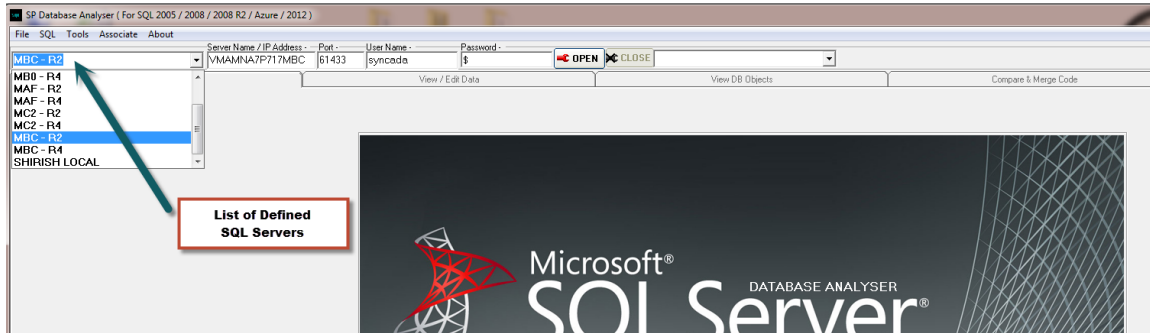
Functional Features List

- Connects to different versions of SQL Server like 7.0, 2000, 2005, etc. and different editions like Express, Standard, Enterprise, etc.
- Once connected, lists out different database objects like Tables, Views, Stored Procedures and User Defined Functions in different panes enabling a quicker search and with following additional features:
 - Tables
 - Lists column properties (name, type, length, nullable, identity, default value, etc.)
 - Marks Primary Keys, Unique Keys, Foreign Keys
 - Lists data in a grid where it can be sorted by any columns
 - Lists Referring and Referred tables
 - Lists triggers and other dependent objects
 - Generates SQL scripts for Insert, Update, Delete, Select and Create
 - Exports data in the table as Insert SQL statements
 - Views
 - Displays the data in a grid where it can be sorted by any columns

- Displays the content text of the view
- Stored Procedures
 - Displays the parameters and its properties
 - Displays the content text of the stored procedure
 - Generates VB and SQL codes to execute a stored procedure
- User Defined Functions
 - Displays the parameters and its properties
 - Displays the content text of the User Defined Functions
- Provides a basic query window for execution of SQL statements.
- Provides Search inside db objects. This feature can be used to search for a text (like table name or an author name) that appears inside a stored procedure, view or user defined functions.
- Generates Excel reports of database objects with details of table properties.
- Easy backup and restore options
- Compares database objects with objects in another database.

2 Connect to SQL Server

2.1 Defining & connecting to a SQL Server Database

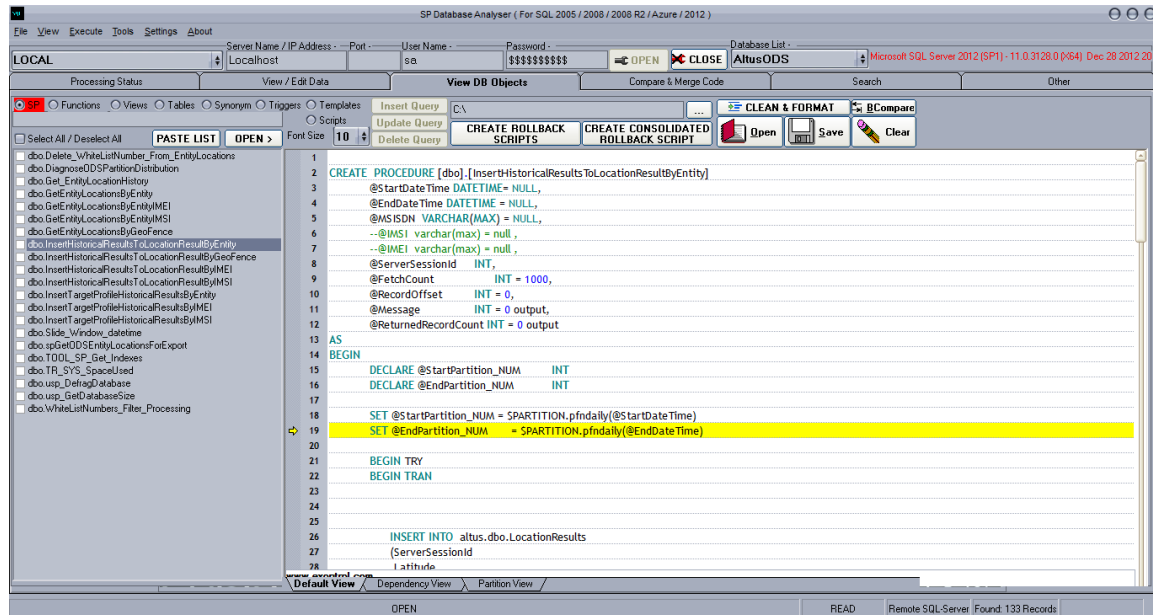


- Enter name of server which you can easily relate to.
- Enter SQL Server Name / IP Address
- Enter SQL Server Port. If it is default SQL Server Port 1433 then leave BLANK.
- Enter SQL Server User Name
- Enter SQL Server Password

Note : The details will be saved for quick access in the future. The drop down will be populated with a list of all database servers connected.

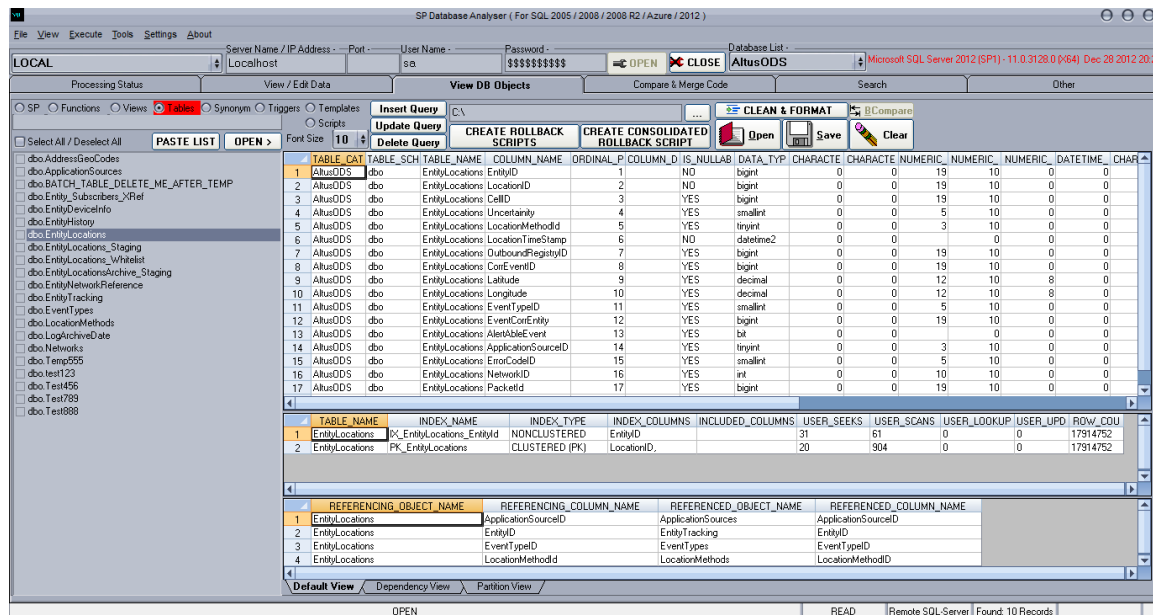
3 View DB Objects

3.1 SP View



- Has a full support of SQL syntax for Microsoft SQL Server

3.2 Default View

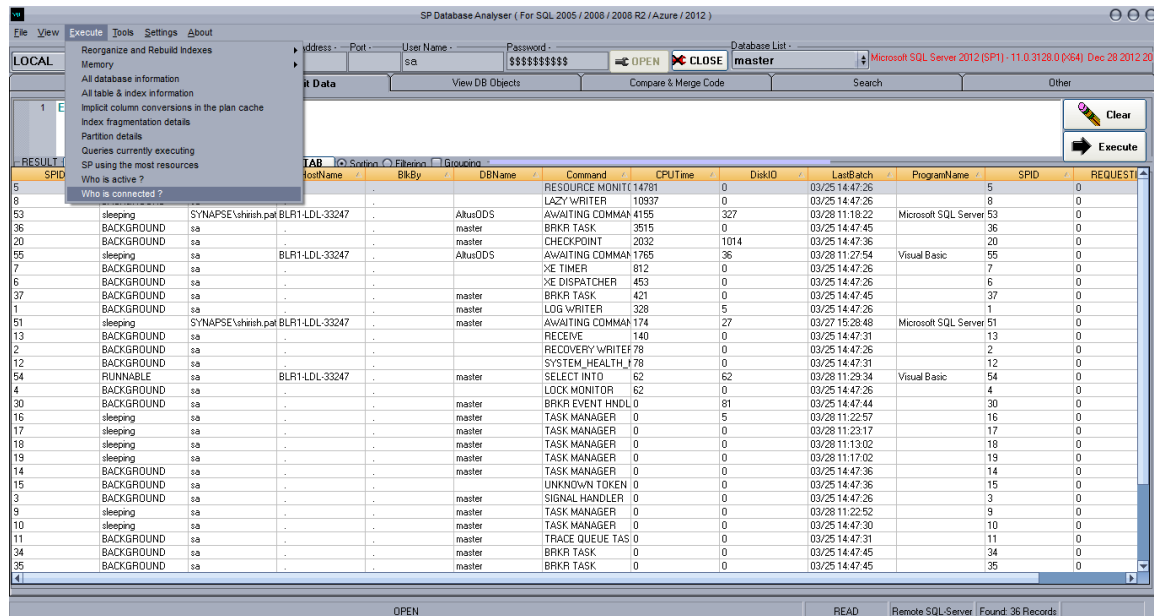


- Partition View

The screenshot displays the SP Database Analyser interface. The top menu bar includes File, View, Execute, Tools, Settings, and About. The main window is titled 'SP Database Analyser (For SQL 2005 / 2008 / 2008 R2 / Azure / 2012)'. The 'View DB Objects' tab is active, showing a list of database objects on the left and a detailed view of the selected object on the right. The selected object is 'dbo.AddressGeoCodes', which is a table with a partitioned structure. The table has 10 partitions, each with a name, index, and a range of values. The 'Partition View' tab is selected at the bottom, showing the partition details for the selected table.

SchemaName	ObjectName	IndexName	IndexID	PartitionSch	PartitionNum	FileGroupNa	LowerBoundaryValue	UpperBoundaryValue	PartitionFunc	Rows
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	40	FG_0607	2013-06-08 00:00:00	2013-06-09 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	41	FG_0608	2013-06-09 00:00:00	2013-06-10 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	42	FG_0609	2013-06-10 00:00:00	2013-06-11 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	43	FG_0610	2013-06-11 00:00:00	2013-06-12 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	44	FG_0611	2013-06-12 00:00:00	2013-06-13 00:00:00	RIGHT	471
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	45	FG_0612	2013-06-13 00:00:00	2013-06-14 00:00:00	RIGHT	93
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	46	FG_0613	2013-06-14 00:00:00	2013-06-15 00:00:00	RIGHT	208
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	47	FG_0614	2013-06-15 00:00:00	2013-06-16 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	48	FG_0615	2013-06-16 00:00:00	2013-06-17 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	49	FG_0616	2013-06-17 00:00:00	2013-06-18 00:00:00	RIGHT	87
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	50	FG_0617	2013-06-18 00:00:00	2013-06-19 00:00:00	RIGHT	127950
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	51	FG_0618	2013-06-19 00:00:00	2013-06-20 00:00:00	RIGHT	367760
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	52	FG_0619	2013-06-20 00:00:00	2013-06-21 00:00:00	RIGHT	609
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	53	FG_0620	2013-06-21 00:00:00	2013-06-22 00:00:00	RIGHT	61032
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	54	FG_0621	2013-06-22 00:00:00	2013-06-23 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	55	FG_0622	2013-06-23 00:00:00	2013-06-24 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	56	FG_0623	2013-06-24 00:00:00	2013-06-25 00:00:00	RIGHT	3330
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	57	FG_0624	2013-06-25 00:00:00	2013-06-26 00:00:00	RIGHT	867
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	58	FG_0625	2013-06-26 00:00:00	2013-06-27 00:00:00	RIGHT	190
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	59	FG_0626	2013-06-27 00:00:00	2013-06-28 00:00:00	RIGHT	3232
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	60	FG_0627	2013-06-28 00:00:00	2013-06-29 00:00:00	RIGHT	124
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	61	FG_0628	2013-06-29 00:00:00	2013-06-30 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	62	FG_0629	2013-06-30 00:00:00	2013-07-01 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	63	FG_0630	2013-07-01 00:00:00	2013-07-02 00:00:00	RIGHT	60
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	64	FG_0701	2013-07-02 00:00:00	2013-07-03 00:00:00	RIGHT	2439
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	65	FG_0702	2013-07-03 00:00:00	2013-07-04 00:00:00	RIGHT	7754
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	66	FG_0703	2013-07-04 00:00:00	2013-07-05 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	67	FG_0704	2013-07-05 00:00:00	2013-07-06 00:00:00	RIGHT	423
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	68	FG_0705	2013-07-06 00:00:00	2013-07-07 00:00:00	RIGHT	0
dbo	EntityLocations	IX_EntityLocations_EntityId	2	pscdaily	69	FG_0706	2013-07-07 00:00:00	2013-07-08 00:00:00	RIGHT	0

4 Execute



1. Count

- Quick record count of all tables and all databases
- Record count of all tables
- Total Reads and Writes of all tables

2. Clean Up

- Clean entire database records & reset identity columns
- Fix the identity increment issue

3. CLR Functions (Pre-coded usable functions)

- BLOB Compress
- BLOB Decompress
- File / Folder operations
 - Move Folder
 - Move File
 - Read Text File
 - Read File
 - Get Folders
 - Get Files

- vii. Get Drives
 - viii. Folder Exists
 - ix. File Exists
 - x. Delete Folder
 - xi. Delete Files Older Than
 - xii. Delete Files
 - xiii. Delete File
 - xiv. Create Text File
 - xv. Create File
 - xvi. Create Folder
 - xvii. Copy File
 - xviii. Append Text File
 - d. Send Email
- 4. E-Mail
 - a. Get E-Mail server delivery status
 - b. Delete all E-Mail history
- 5. Index
 - a. Reorganize and Rebuild Indexes
 - i. Single Index
 - ii. All indexes on a specific table
 - iii. All indexes in the database
 - b. How old are the index usage stats?
 - c. Index usage
 - d. Index fragmentation details
 - e. Identify indexes that have never been accessed
 - f. Identify indexes that are being maintained but not used
 - g. Potentially inefficient non-clustered indexes (writes > reads)
 - h. Detailed activity information for indexes not used for user reads
 - i. Identify locking and blocking at the row level
 - j. Identify latch waits of over 15 milliseconds

- k. Identify lock escalations
 - l. Identify indexes associated with lock contention
 - m. Finding the most beneficial missing indexes
 - n. List of disabled indexes
- 6. Information
 - a. All table last accessed details
- 7. Jobs
 - a. Get complete job history
 - b. Get all problematic jobs
 - c. Get all running jobs
- 8. Memory
 - a. Clean Cache – FREEPROCCACHE
 - b. Clean Just SQL Plans
 - c. Clean Buffer – DROPCLEANBUFFERS
- 9. Processes
 - a. Find all the blocked processes
 - b. Kill all the blocked processes of current database
 - c. Kill all the processes of current database
 - d. % CPU Usage
 - e. % Memory Usage
- 10. SQL Server
 - a. All Databases Files with Size and Free Space
 - b. SQL Services installed and its current status
- 11. SQL Server 2014
 - a. List of all COLUMNSTORE Index Segment creation details
 - b. List of all the Memory Optimized Tables
 - c. List of database bound to a resource pool
- 12. Tests & Analysis
 - a. SQL Server's Index Sanity Test

- b. SQL Server Plan Cache Analysis
- c. Troubleshoot Slow SQL Servers
- d. SQL Server Health Check Script
- e. List all heap tables
- f. List of all triggers and status
- g. List of all disabled indexes Users
- h. Get all user permissions on all databases
- i. Security Audit Report
- j. Who is active?
- k. Who is connected?

13. Users

- a. Get all user permissions on all databases
- b. Security Audit Report
- c. Who is active ?
- d. Who is connected ?

14. All database information

15. All table & index information

16. Get backup history of all the databases

17. Get information on all open snapshot transactions

18. Get all db objects in the database

19. Get all cross database dependencies

20. Get all dependencies in the database

21. Get all Foreign Key relationships in database

22. Get all tables with NO Foreign Key relationships in database

23. Get all Foreign Key relationships in database with entire table and column details

24. Get all Input/Output Parameters of all UDF and SP

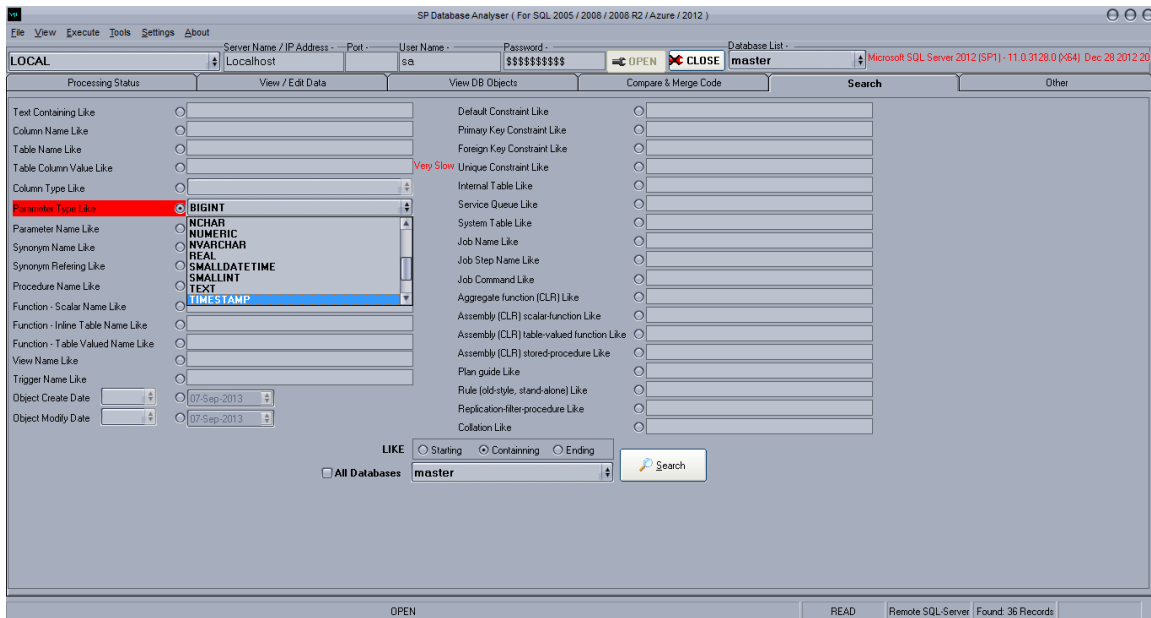
25. Implicit column conversions in the plan cache

26. Partition details

27. Queries currently executing

28. SP using the most resources

5 Search



6 Tools

6.1 Express Profiler

6.2 Append multiple files by adding header, footer, find and replace...

6.3 Rename multiple files at once...

6.4 Search for specific text in files... e.g. SQL Azure - Deprecated features search for (NOLOCK) in UI code

6.5 Import Flat File To DB

6.6 Generate a list of files in a specific folder..

6.7 Query Builder

7 Settings → Control Panel

☒ **Code clean up :-**

- ☒ Replace 3 & 4 part naming to Synonym if exists
- ☒ Convert (NOLOCK) to WITH(NOLOCK) & (ROWLOCK) to WITH(ROWLOCK)
- ☒ Convert ISNULL() function to COALESCE() function
- ☒ Remove extra line breaks. (3 Blank Lines to 2 Blank Lines)
- ☒ Remove all trailing tabs and spaces

☒ **Code formatting :-**

- ☒ Indent String
- ☒ Spaces Per Tab (4)
- ☒ Max Line Width (999)
- ☐ Trailing Commas
- ☐ Space After Expanded Comma
- ☒ Expand Between Conditions
- ☒ Expand Boolean Expressions
- ☒ Expand Case Statements
- ☒ Expand Comma Lists
- ☒ Upper Case Keywords
- ☒ Expand In Lists
- ☒ Standardize Keywords
- ☐ Allow Parsing Errors
- ☒ Statement Breaks (2)
- ☒ Clause Breaks (1)

☒ **Backup files before modification :-**

C:\

Note : Default enabled values are marked in BLUE.

- Import Registered Servers (xml file) .regsvr
Note : It will only import SQL Server Name (Description) and SQL Server IP / Name

8 Themes

There are 31 themes provided with this software.

If you wish to deactivate the theme then select the last theme named “No Theme”

No.	Theme Name
1	_SQL Server 7 Sphinx 7.0
2	_SQL Server 2000 Shiloh 8.0
3	_SQL Server 2005 Yukon 9.0
4	_SQL Server 2008 Katmai 10.0
5	_SQL Server 2008 R2 Kilimanjaro 10.5
6	_SQL Server 2012 Denali 11.0
7	_SQL Server 2014 Hekaton 12.0
8	Fresco
9	gfxOasis
10	Gorilla
11	Infini8RC1
12	iTunesA
13	iTunesB
14	Kuantum
15	Le5
16	MM
17	Office2007
18	ProLCD
19	Quantum
20	Seer
21	Sentinel
22	Studio28
23	Tech45
24	Thallos
25	Tiger
26	Underling
27	Vista
28	ViXPta
29	VXP
30	WinXP.Luna
31	WinXP.Royale
32	No Theme