Kernel
SQL Database Recovery

Contents

1. Introduction to Kernel SQL Database Recovery

Welcome to the User Manual for Kernel SQL Database Recovery, an effective and powerful data recovery software to recover data from the corrupt SQL databases (.MDF). This user manual comprises step-by-step guidelines on using Kernel SQL Database Recovery software.

1.1 Using this Manual

This User Manual is intended to guide users on using Kernel SQL Database Recovery. We suggest that first time users should read this User Manual completely and carefully before proceeding to use the software. However, if you are an experienced user, you can use the Table of Contents to find out information pertaining to the tasks that you need to perform by using Kernel SQL Database Recovery.

You can use the Table of Contents to navigate through different sections of this User Manual. The Table of Contents enlists all the sections contained within this user manual in chronological order.

1.1.1 List of Abbreviations

Certain abbreviations have been used throughout this manual. For a clear understanding of the contents of this user manual, please go through the list of abbreviations, mentioned below, before reading the manual.

- o   MS: Microsoft

- o   SQL: Structured Query Language

- o   QFSCI: Quick File System Component Identification

- o   RAM: Random Access Memory

- o   MB: Mega-Byte

- o   GB: Giga-Byte

1.1.2 About Kernel SQL Database Recovery

Kernel SQL Database Recovery is an advanced and professional database recovery software that recovers data from corrupt, damaged .MDF database files. Kernel SQL Database Recovery software is equipped with powerful QFSCI algorithm which efficiently scans and retrieves data from the corrupt databases.

The common reasons which lead to SQL database corruptions are:

- Invalid database file header

- Not able to associate database file with different databases

- Internal Program Error(s) Crash or Failure of hard drive

- Media contamination or damage

- Accidental deletion of data and files

- Accidental reformatting of partitions

- Virus attacks

- Data corruptions

1.2   Salient Features

Salient features of Kernel SQL Database Recovery include:

- Effectively repairs and extracts data from the corrupt SQL database (.MDF).
- Creates script file(s) where the recovered files are saved.
- Deleted records can be recovered and are saved in a separate SQL script.
- Accurately recovers Microsoft SQL Server backup files.
- Accurately recovers all database objects contained within MDF files including tables, triggers, views, stored procedures, primary keys, indexes, unique keys, foreign keys, predefined defaults, default values, rules, checks, and user data types (default, rule, Allow null)
- Capable of restoring data on the server while SQL Server is still running
- Preserves Structure and properties of recovered SQL databases objects
- Recovers multiple MDF Files and folders in no matter of time
- Efficiently repairs large-sized MDF files
- Fully supports the recovery of data from MDF files created with SQL Server version 2000, 2005, 2008, 2008 R2, 2012, 2014, 2016, 2017, & 2019
- Offers an easy-to-use, self-descriptive, user-friendly Graphical User Interface. No technical skills required for operating the software
- Available as a free to download the demo version
- Offers round-the-clock technical support

1.3   Who Should Use This Software?

The capability of Kernel SQL Database Recovery to repair large-sized SQL databases makes it appropriate for use by SQL Server administrators, who need to recover data from corrupt or damaged MDF database files. The corruption could have been caused due to virus attacks, improper system shutdown, network problems, database file header corruption, etc.

2. Getting Started

Now that you have understood the features and potential of Kernel SQL Database Recovery, you are ready to get a hands-on experience of the software. To start repairing MDF files, you will first need to download and install this software.

It is strongly recommended that before installing Kernel SQL Database Recovery, you should go through the installation pre-requisites for the software to ensure that your computer is appropriately configured to run the software.

2.1   Installation Pre-requisites

The various pre-requisites for installing and running Kernel SQL Database Recovery can be broadly classified into two major categories – Hardware requirements and Software requirements.

2.1.1 Hardware Requirements

The hardware requirements for installing the software are as follows:

- Pentium Class Processor
- Minimum 64MB RAM (128 MB Recommended) 10MB free space for
- Software Installation
- Disk Space - Enough disk space to save the results

2.1.2 Software Requirements

The software requirements for installing the software can further be grouped into two categories – Operating System requirements and SQL Server version requirements. The requirements are as follows:

2.1.2.1   Operating System Requirements

Supported Windows Platforms:

- Windows 10
- Windows 8/8.1
- Windows 7
- Windows Vista
- Windows XP

- Windows Server 2000
- Windows Server 2003
- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2016
- Windows Server 2019

2.1.2.2   SQL Server Version Requirements

Supported MS SQL Server Versions:

- SQL Server 2000
- SQL Server 2005
- SQL Server 2008
- SQL Server 2008 R2
- SQL Server 2012
- SQL Server 2014
- SQL Server 2016
- SQL Server 2017
- SQL Server 2019

2.2   Downloading Kernel SQL Database Recovery for the First Time

After checking your computer with the prescribed system requirements for Kernel SQL Database Recovery, you can download and install the software on your computer.

If you want to try using Kernel SQL Database Recovery before buying it, you can download the evaluation version from the following link:

https://www.nucleustechnologies.com/download-sql-recovery.php

✎ You can repair .MDF files saved on your system by using the evaluation version of Kernel SQL Database Recovery; however, the repaired file will not be saved until you purchase the full version of the software.

2.3   Install Kernel SQL Database Recovery

After downloading the installer file for Kernel SQL Database Recovery, you can install the software by running the file. To install Kernel SQL Database Recovery:

1. Double-click the **Kernel SQL Database Recovery** installer.

2. Follow the on-screen instructions.

3. The **Setup Installation Complete** screen gets displayed.

4. Click **Finish** to launch the software.

2.4   Start Kernel SQL Database Recovery

To start **Kernel SQL Database Recovery**:

1. Click Start $\longrightarrow$ All Programs $\longrightarrow$ Kernel SQL Database Recovery

Alternatively, you can launch **Kernel SQL Database Recovery** by double-clicking the shortcut icon available on the desktop and Quick Launch icon.

2.5   Uninstall Kernel SQL Database Recovery

You may need to uninstall and re-install Kernel SQL Database Recovery. To uninstall Kernel SQL Database Recovery:

1. Click   Start → All   Programs → Kernel SQL Database Recovery → Uninstall Kernel SQL

A warning message will be displayed.

2. Click '**Yes**' to uninstall Kernel SQL Database Recovery.

✎ Before proceeding to uninstall Kernel SQL Database Recovery, you must ensure that the
software is not running.

You can alternatively uninstall Kernel SQL Database Recovery from the **Control Panel** by
performing the following steps:

1. Click the **Start Menu** —> **Control Panel** and then double-click the **Add or Remove Programs** icon.

2. Select **Kernel SQL Database Recovery** and click **Remove**.
   A warning message will be displayed.

3. Click '**Yes**' to uninstall Kernel SQL Database Recovery.

3. Software Interface

Now that Kernel SQL Database Recovery has been installed on your computer, you can start using the software after getting acquainted with the software interface.

3.1 Menu Bar

The Menu bar of Kernel SQL Database Recovery comprises three menus:

- File Menu

- Tools Menu

- Help Menu

### 3.1.1 File Menu

The **File** menu comprises three menu items:
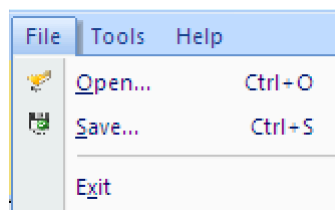
Figure 3.1: File Menu

The following table enlists the options available in the **File** menu:

Option	Description
Open	Select this option to locate the damaged SQL database on your hard disk
Save	Select this option to save the data so recovered from the SQL database
Exit	Select this option to close the application

3.1.2 Tools Menu

The **Tools** menu comprises only one menu item:
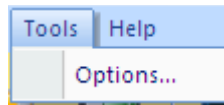
Figure 3.2: Tools Menu

On clicking on **Options** menu item, the software offers two options that are:

Option	Description
Consider all pages as corrupted	Highly-recommended to select this option; proves useful in recovering data from heavily-corrupted databases
Save the tables without identity property	Select this option if tables are not saving due to corrupted data. Checking this option will allow saving the tables without identity; you can set the identity of these tables after recovery

3.1.3 Help Menu

The **Help** menu of Kernel SQL Database Recovery software appears, as shown in the following figure:
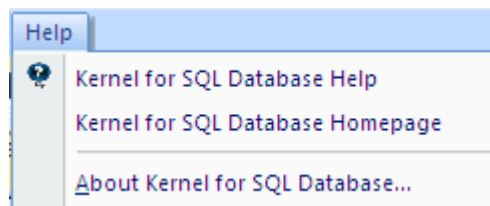
Figure 3.3: Help Menu

The following table enlists the options available in the **Help** menu:

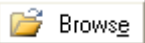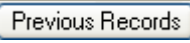| Option	Description
Kernel SQL Database Recovery Help	Select this option to view Help manual of the software
Kernel SQL Database Recovery Homepage	Select this option to visit the webpage to know more about the software
About Kernel SQL Database Recovery	Select this option to view version information about the software and various other related links

3.2 Tool Bar

Toolbar consists of buttons that work as short cuts for various options available in the main menus of Kernel SQL Database Recovery software. The following table enlists the buttons available on the Toolbar of the software:

Button	Description
Open	Select this option to locate the damaged SQL database on your hard disk
Save	Select this option to save the data so recovered from the SQL database
Help	Select this option to view Help manual of the software

3.3 Buttons Used

There are several buttons used in the software that helps you throughout the recovery process. The following table enlists the buttons used in the software:

Button	Description
Recover	This option initiates the recovery process of the selected database
Cancel	This option cancels the action and closes the dialog
Browse	This option lets you locate the damaged SQL database
Previous Records	This option takes you to the previous page in the record
Next Records	This option takes you to the next page in the record
Stop	This option lets you stop the ongoing process
Refresh	This option allows you to refresh the process

4. Repairing MDF Files

Kernel SQL Database Recovery is an ideal software that helps you restore objects from corrupt databases. No matter what made your MDF database corrupt or inaccessible, the Kernel SQL database Recovery will recover your data easily and quickly. Follow the steps given below to repair SQL Databases:

1. Select **Start > All Programs > Kernel SQL Database Recovery > Kernel SQL Database Recovery** to launch the software. The software home window appears:
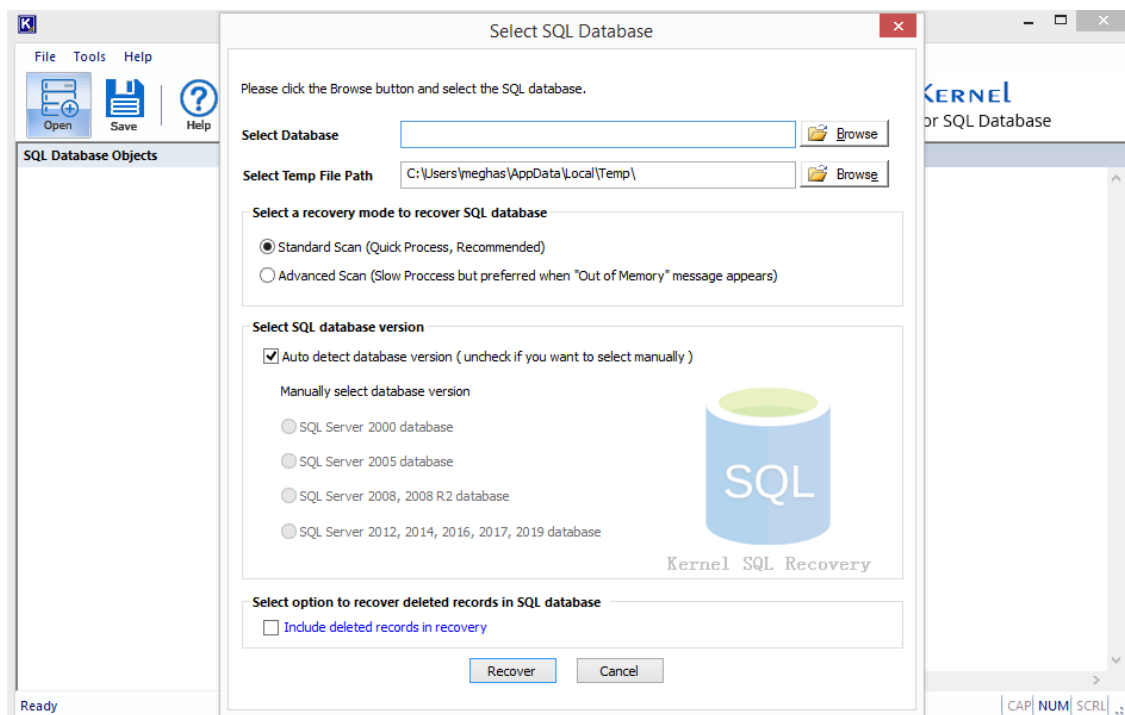

Figure 4.1: Home Window of Kernel SQL Database Recovery

> ✎ "Select SQL Database" dialog appears by-default when the software is launched. This dialog can be launched by clicking the **Open** button in **Tool** bar or by selecting **File** menu > **Open**.

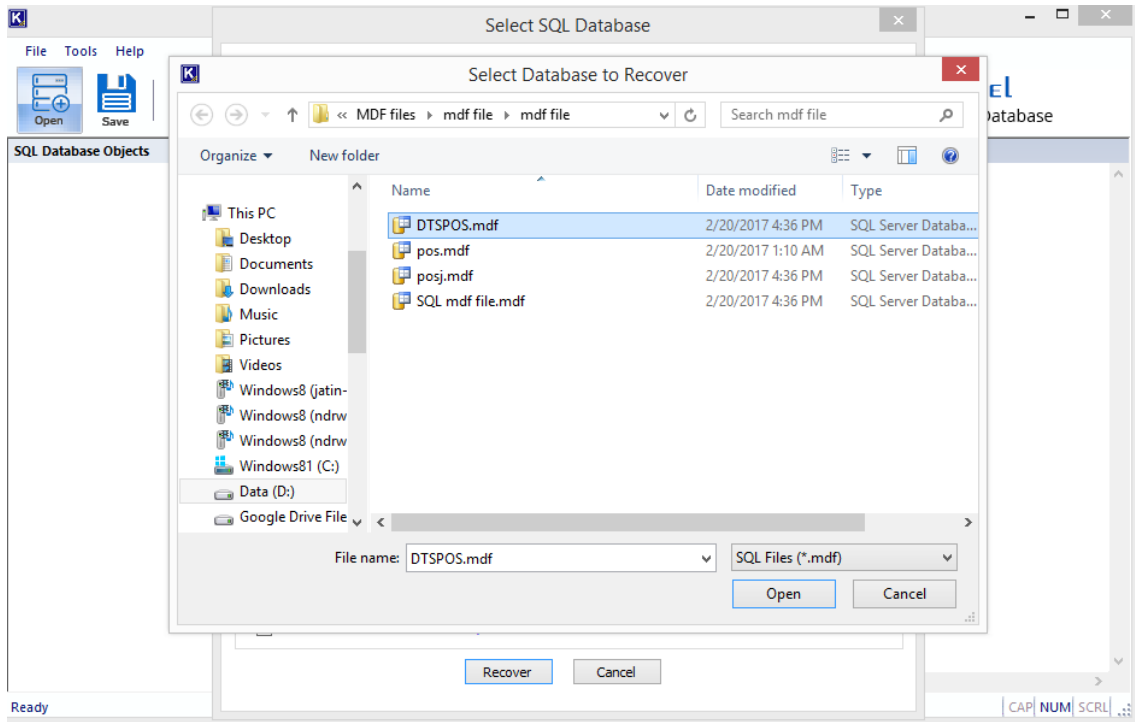2. Click the **Browse** button to locate the corrupt SQL Database:

Figure 4.2: Locate Corrupt SQL Database

3. Select the **SQL Database version** with which the .MDF file is created:
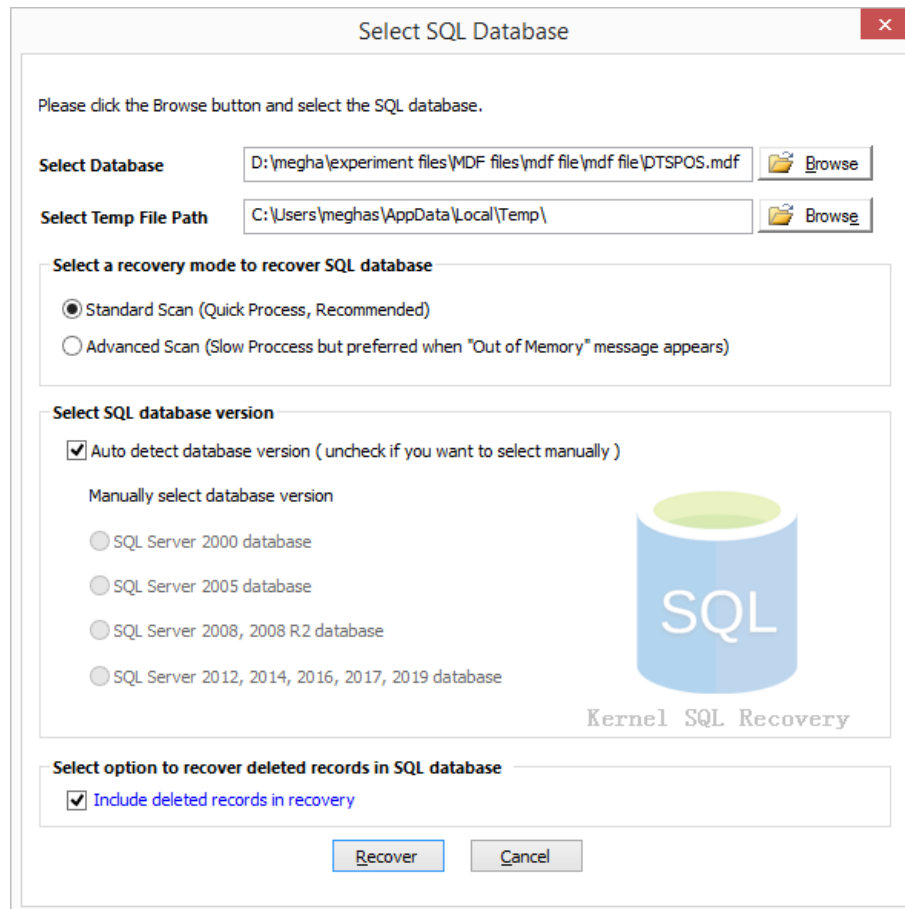
Figure 4.3: Select SQL Database Version

4. Click the **Recover** button to initiate the recovery process, and Software will enlist the SQL database objects in the left pane:
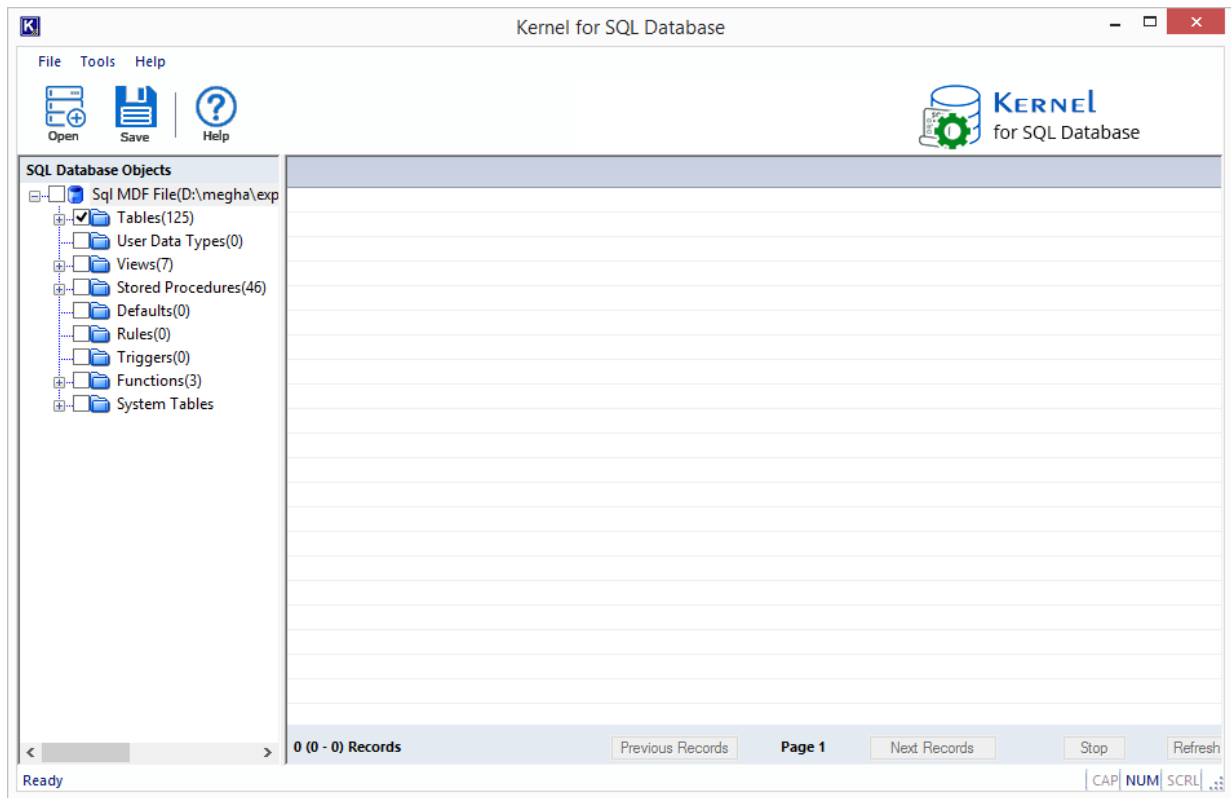
Figure 4.4: Enlisted SQL Database Objects

Note that, if the user selects the wrong SQL Server version, the software displays the following error message:

Figure 4.5: Error Message on the selection of wrong SQL
Server version

5. Select an object in the left tree whose content you want to verify before saving. When you select the folder, its content will be displayed in the right pane:
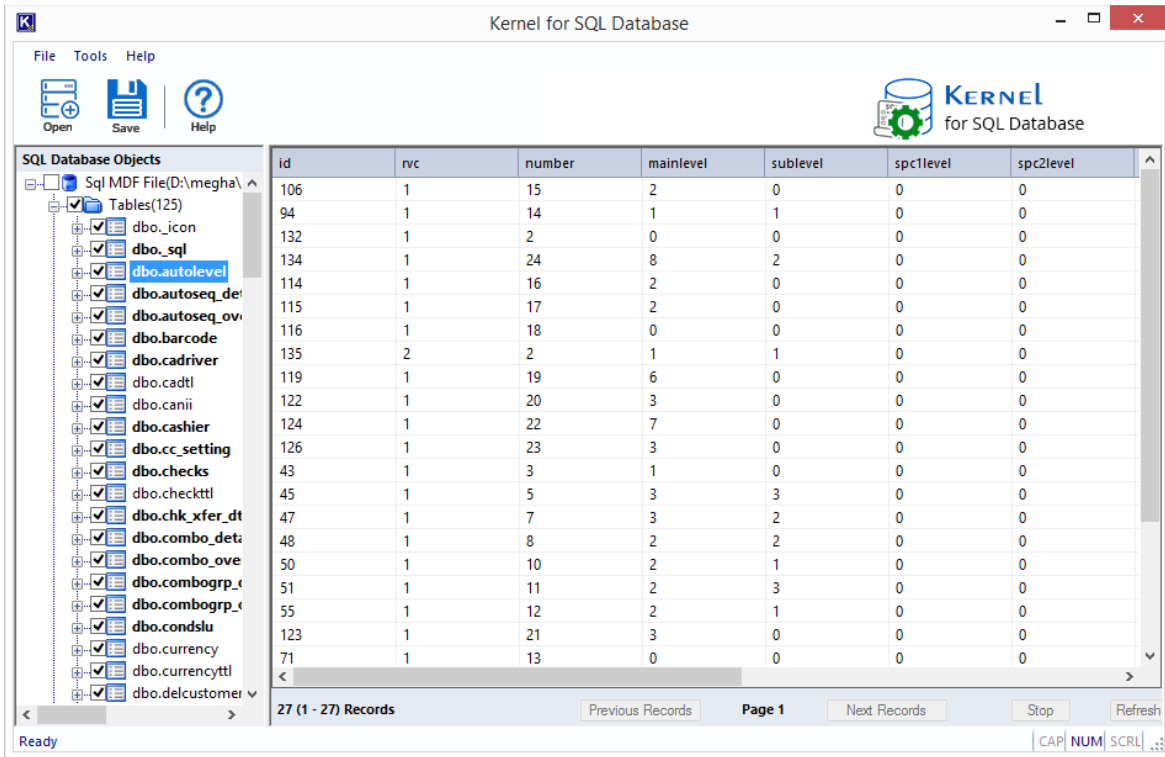
Figure 4.6: Preview of Selected Object

6. After previewing the required items, select the data for saving, and then click the **Save** button. The 'Saving Mode' dialog box appears:
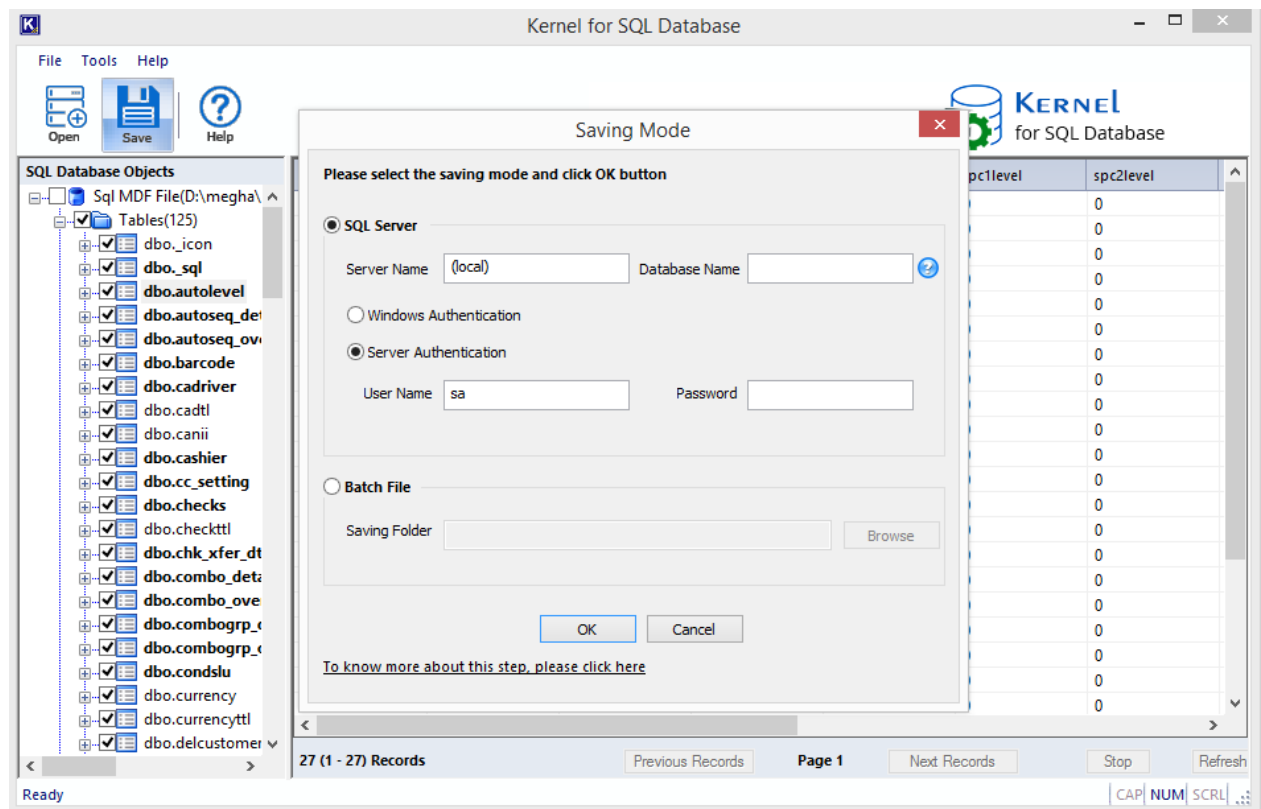
Figure 4.7: Available Saving Modes

✎ To save the data, you can click the **Save** button on the **Tool bar** or go to **File** menu > **Save**

You can save the recovered objects in two different modes which are:

a. **SQL Server:** Using this option, the recovered objects can be saved on SQL Server directly, even if the server is running. To save the data on SQL Server:

1. Mention Server Name and Name of the database in **Server Name** and **Database Name** fields respectively. Do not provide the name of an existing database in the **Database Name** field. Create a new database in SQL Server Management Studio and enter the name of the new database in the **Database Name** field. However, existing database name can also be provided but in case of existing database restored objects will get merged with existing objects.
2. Select the Authentication option with which you wish to access the SQL Server, i.e. **Windows Authentication** or **Server Authentication.** To access **SQL Server** with **Server Authentication**, you need to enter **User Name** and **Password** in the respective fields.

b. **Batch File:** Using this option, you can save the batch file of the rebuilt SQL database on the desired location. To save the recovered, you need to browse the location using the **Browse** button. The data so recovered is saved in separate script files at the desired location. Also, a script file (commit.bat) is also created that enables the user to easily copy the recovered objects to a new database created on SQL Server. To copy recovered objects to a new database on SQL server:

1. Go to SQL Server Management Studio

2. Create a New Database

3. Double-click on commit.bat

   OR

   (Run $\rightarrow$ cmd) Change the path to the recovered folder (cd PathName)

4. Use the following syntax:

   >commit.bat servername newcreateddatabase sqlserverusername sqlserverpassword

   Press Enter key and all tables will be copied to the new created database.

7. After selecting the required Saving Mode option, click the **OK** button. The software starts saving the recovered objects:
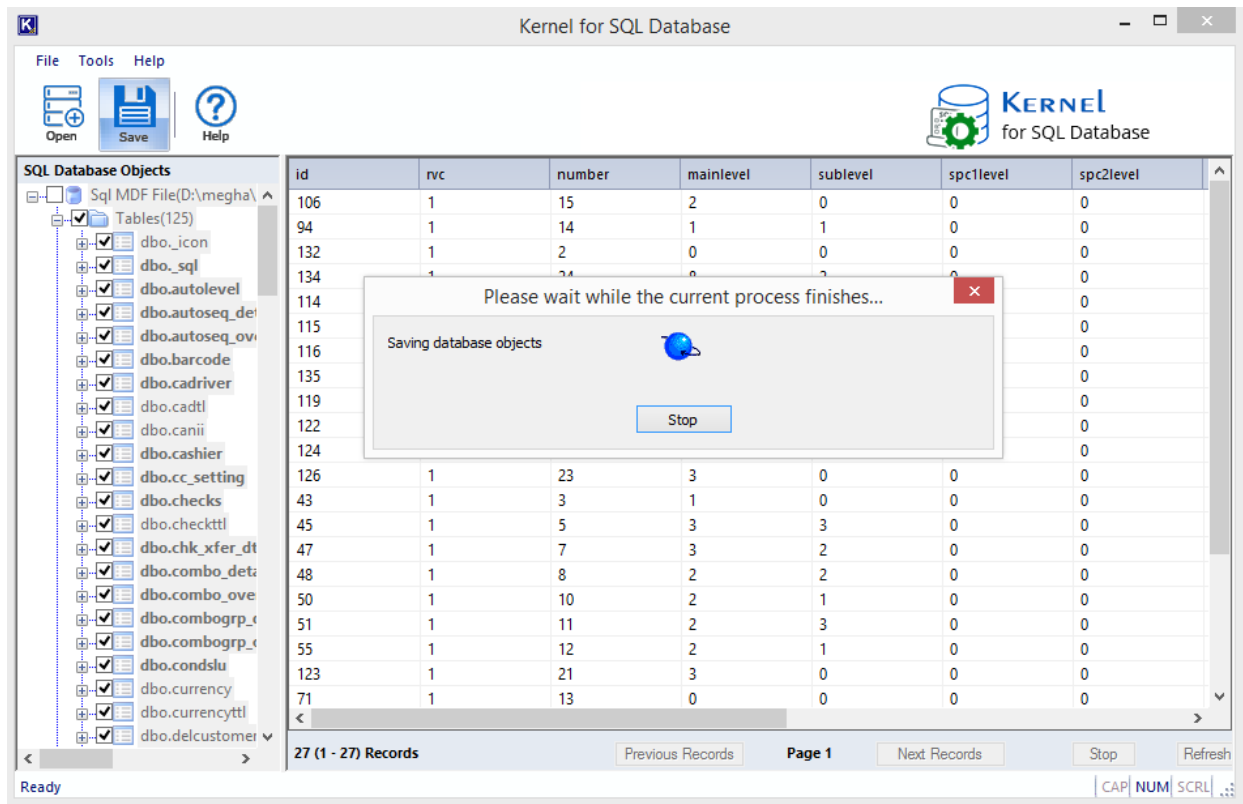
Figure 4.8: Saving Database Objects in Progress

8. The software displays the following **'Process Completed'** dialog box when the data is saved successfully at the desired location:
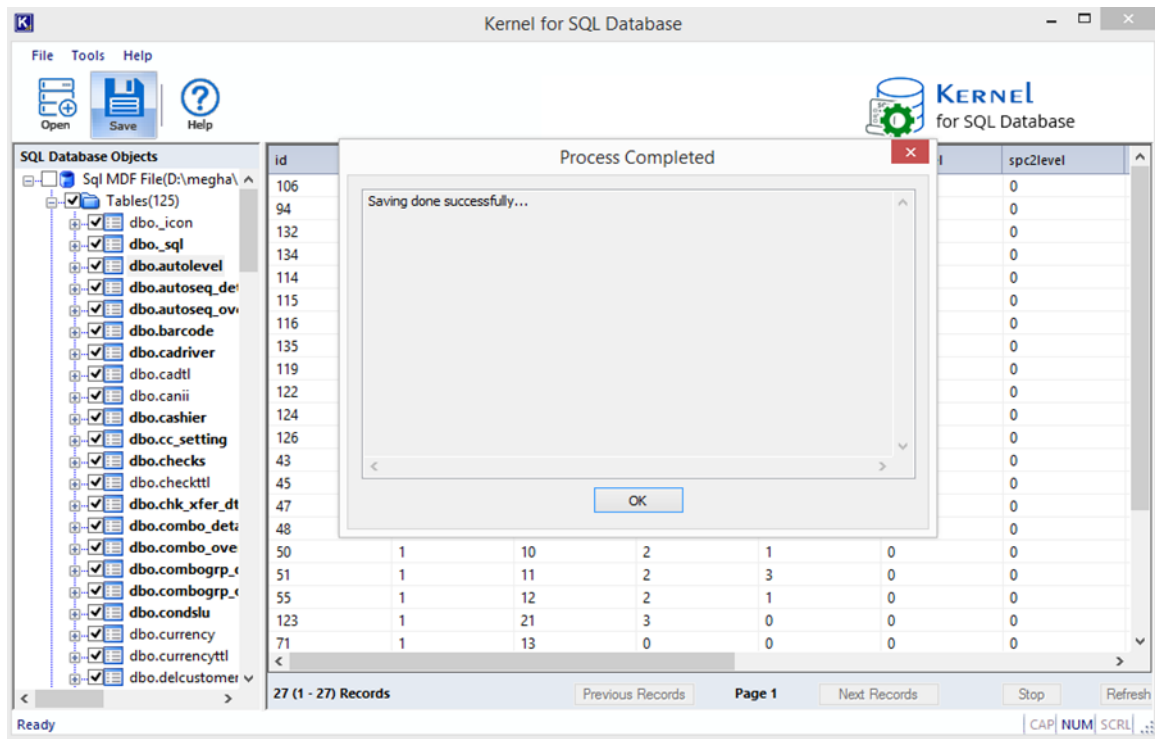
Figure 4.9: Successful Saving of Database Objects

9. Click **OK** button to close the 'Process Completed' dialog box.

5. Troubleshooting

5.1　Common Issues

What is the limitation in the trial version of Kernel SQL Database Recovery?

The trial version of Kernel SQL Database Recovery works almost the same as that of the full version of the software such that it accurately recovers entire database objects embedded within the SQL Server database MDF files, displays a preview of all the recovered objects but restricts users from saving them. In order to save the entire recovered SQL database objects, the user must purchase the full licensed version of the software.

5.2　Frequently Asked Questions

1. **How to purchase Kernel SQL Database Recovery?**
   One can buy Kernel SQL Database Recovery using the website: www.nucleustechnologies.com/buy-sql-recovery.php

2. **What are the supported Windows OS platforms for Kernel SQL Database Recovery software?**
    The supported Windows OS platforms for Kernel SQL Database Recovery software are Windows 8, Windows 7, Windows Vista,   Windows XP, Windows Server 2000, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, Windows Server 2016 and Windows Server 2019.

3. **What are the supported MS SQL Server versions for Kernel SQL Database Recovery software?**
    The supported MS SQL Server versions for Kernel SQL Database Recovery software are: SQL Server 2000, SQL Server 2005, SQL Server 2008, SQL Server 2008 R2, SQL Server 2012, SQL Server 2016, SQL Server 2017 and SQL Server 2019.

4. **Give the link for downloading the free trial version of Kernel SQL Database Recovery software.**
    The free trial version of Kernel SQL Database Recovery software can be downloaded using the link:
    www.nucleustechnologies.com/download-sql-recovery.php

6. Conclusion

The User Guide is easy to understand and helps to recover corrupt and inaccessible MDF files and save it to a batch file or live SQL Server. Learn more about the product and its benefits here:
https://www.nucleustechnologies.com/sql-recovery.html

7. Support

Connect to our experts immediately while facing any issues during installation, configuration, or associated matters:
• 1-866-348-7872
• 0-808-189-1438
Additionally, you can connect with us at https://www.nucleustechnologies.com/Contact.html
to submit your query, or chat with one of our support team.
Moreover, you can write to us at the following email addresses:
• sales@nucleustechnologies.com (for Sales Queries)
• support@nucleustechnologies.com (for Support Queries)

8. Copyright

-end-